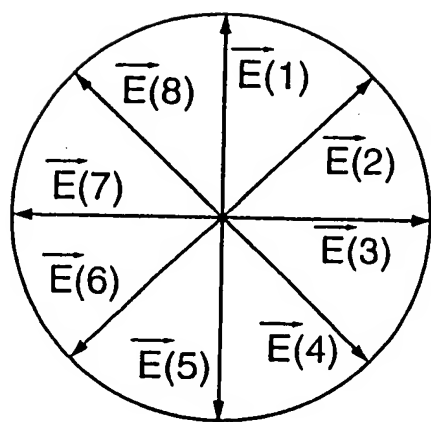
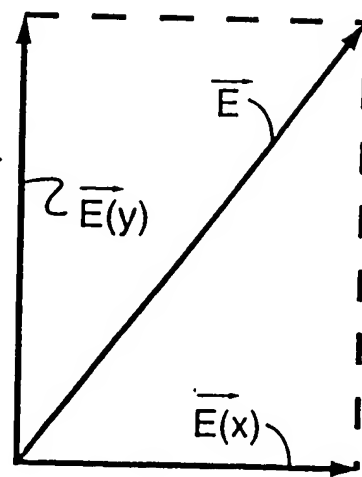


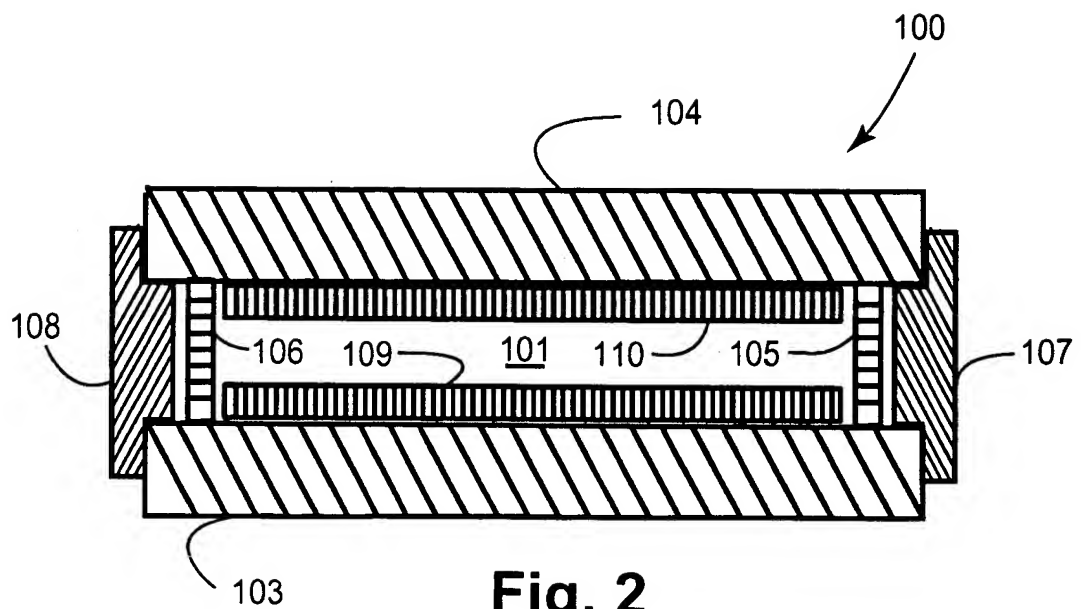
**Fig. 1**



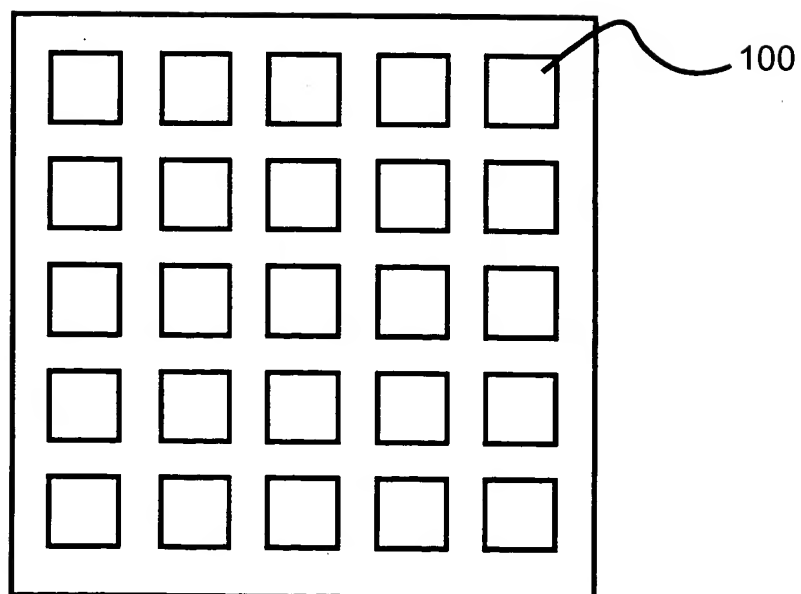
**Fig. 1A**



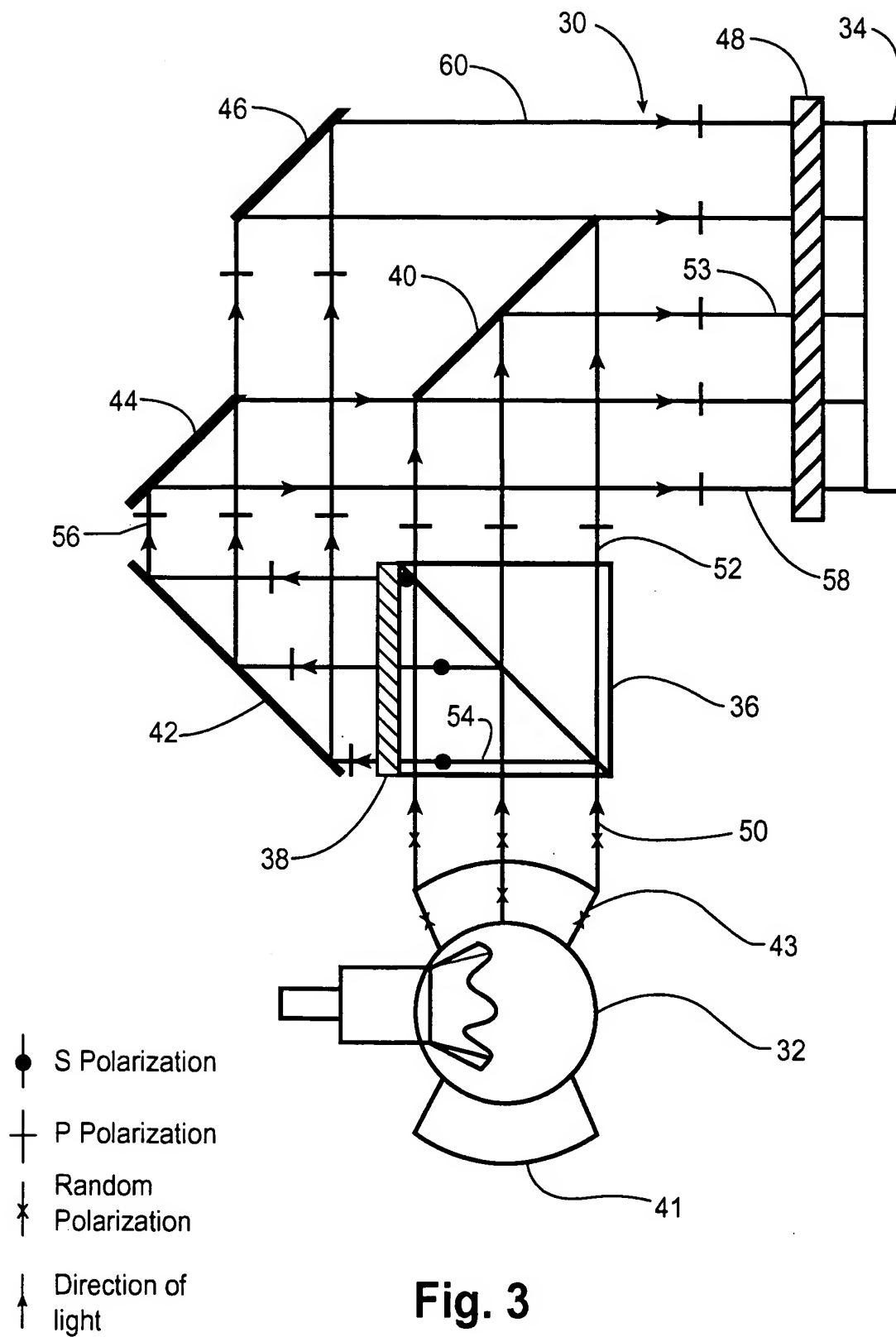
**Fig. 1B**



**Fig. 2**  
**(Prior Art)**



**Fig. 2A**



**Fig. 3**

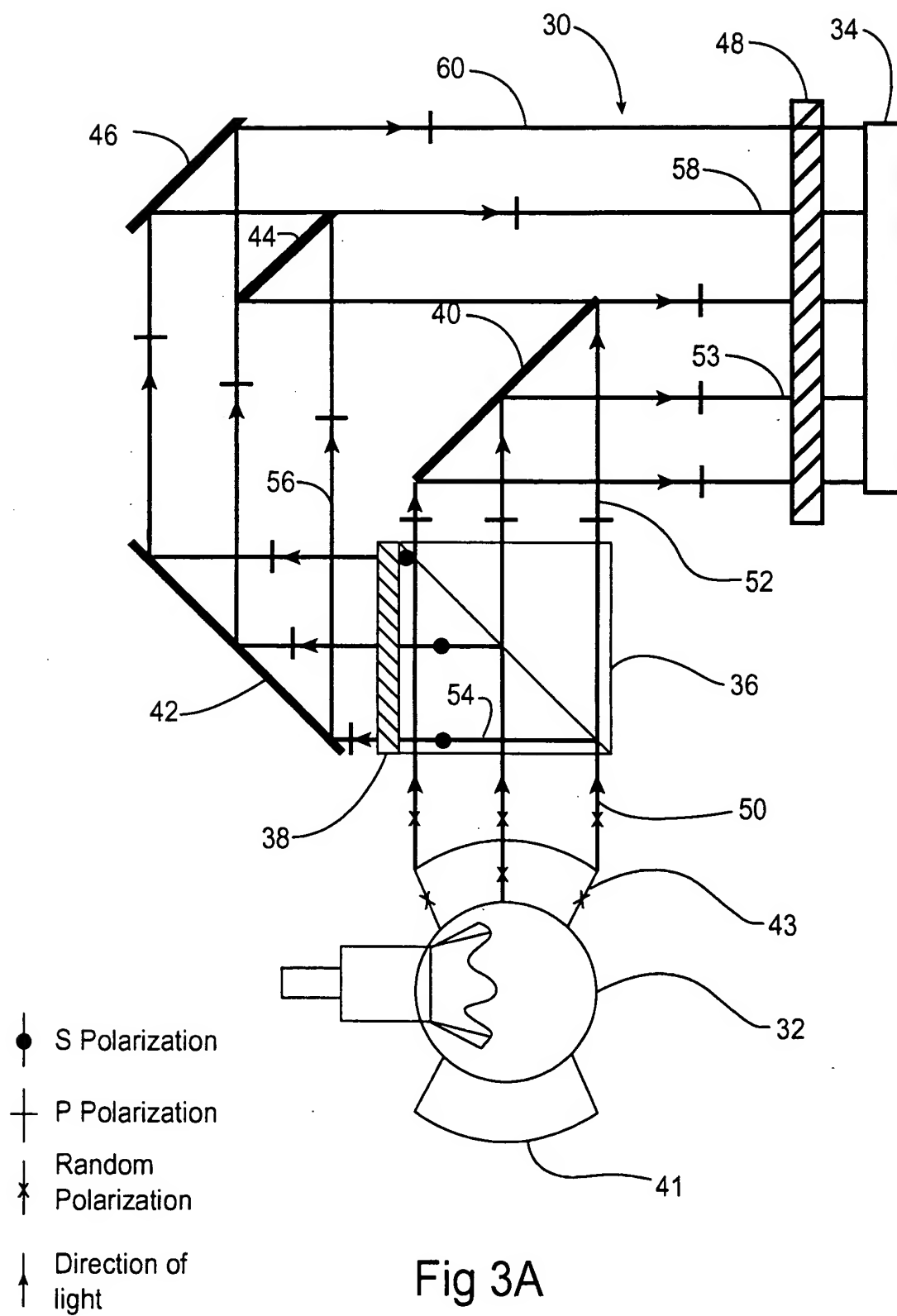
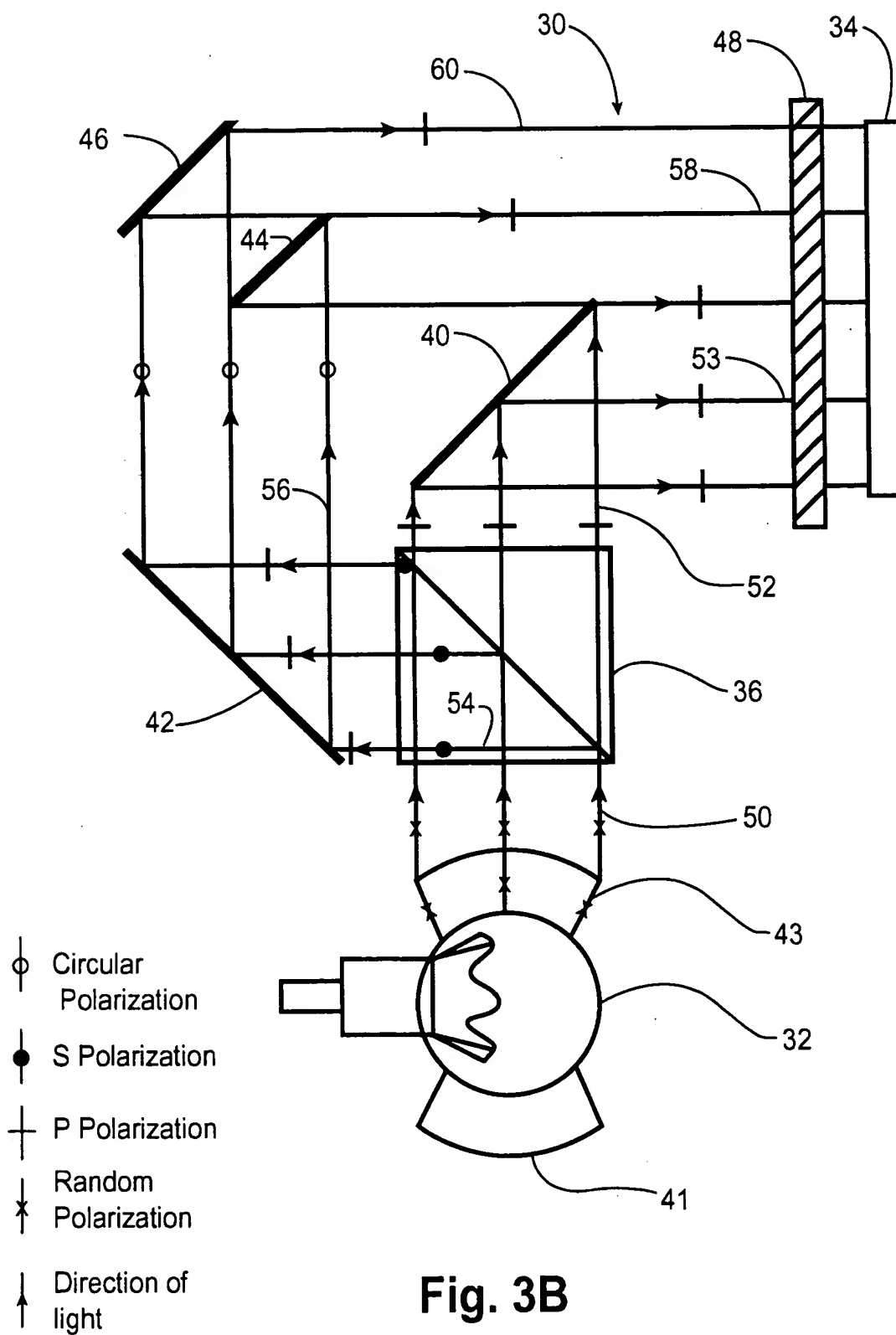
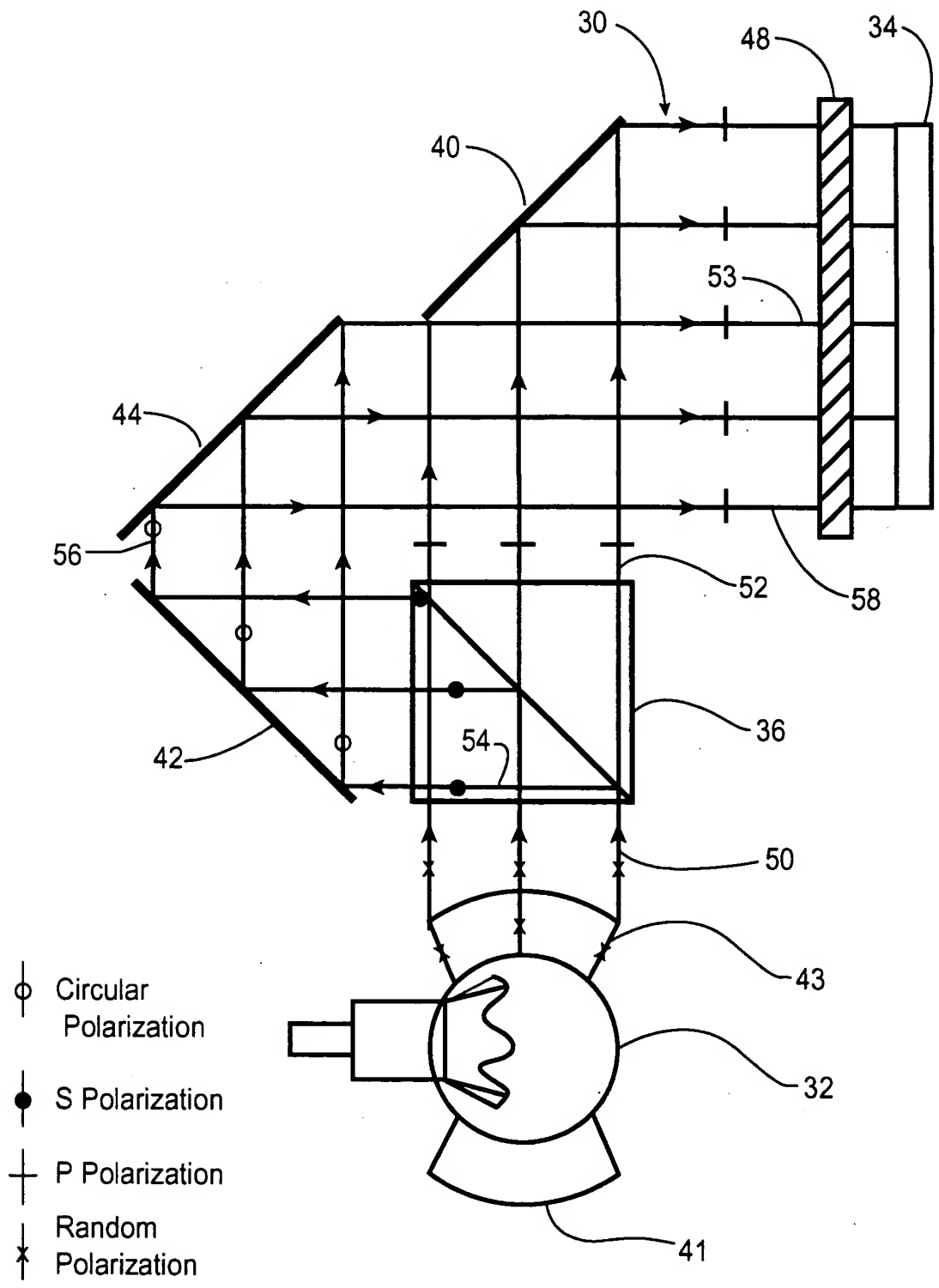


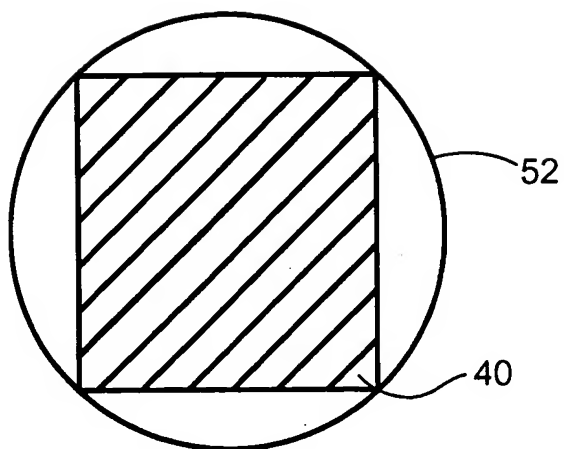
Fig 3A



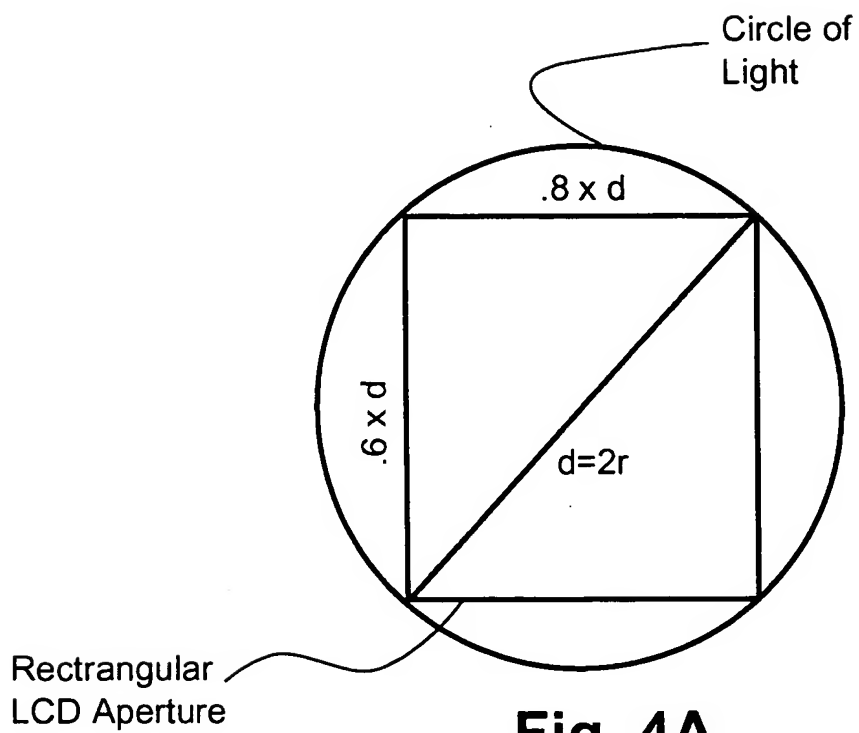
**Fig. 3B**



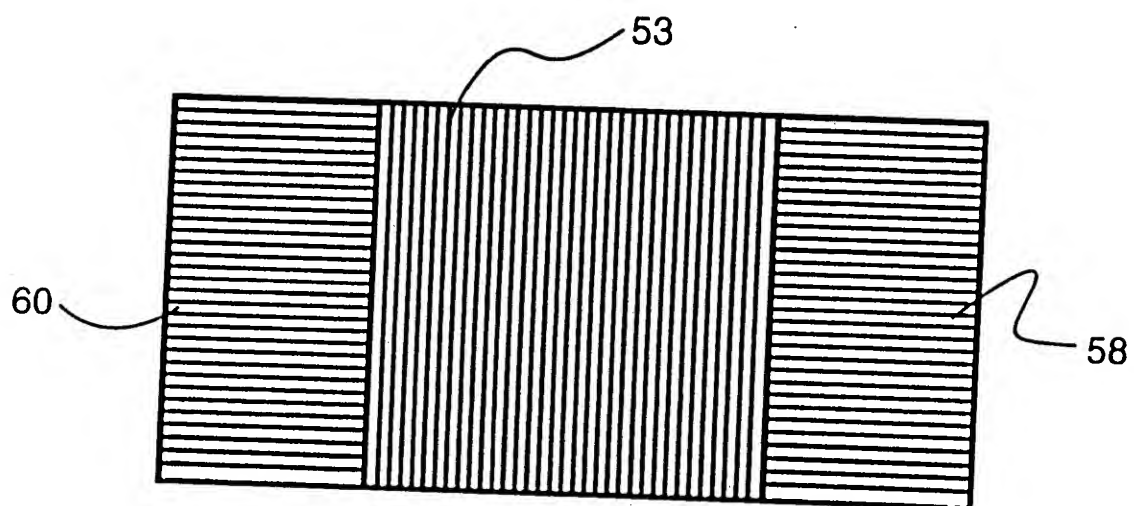
**Fig. 3C**



**Fig. 4**

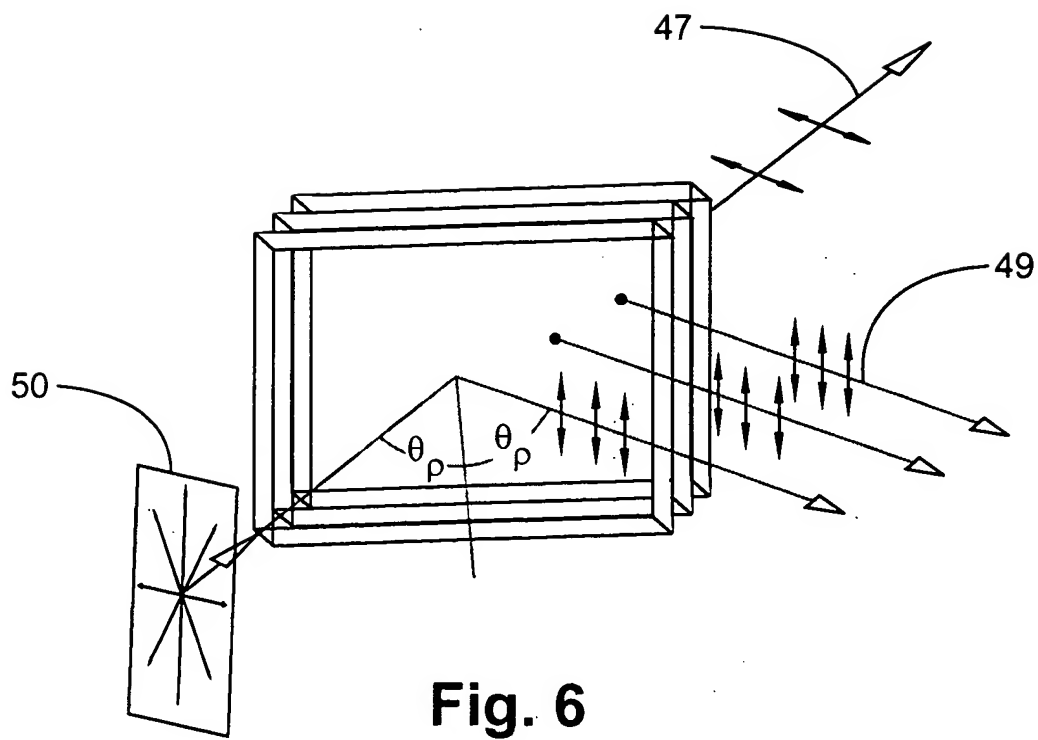


**Fig. 4A**

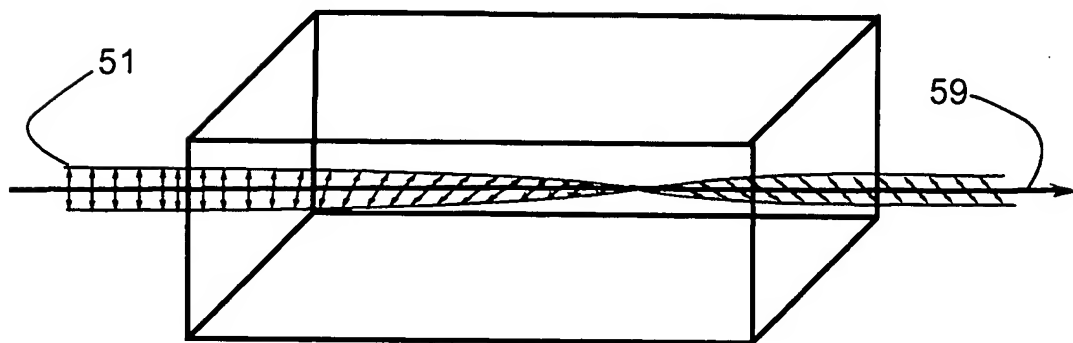


**Fig. 5**

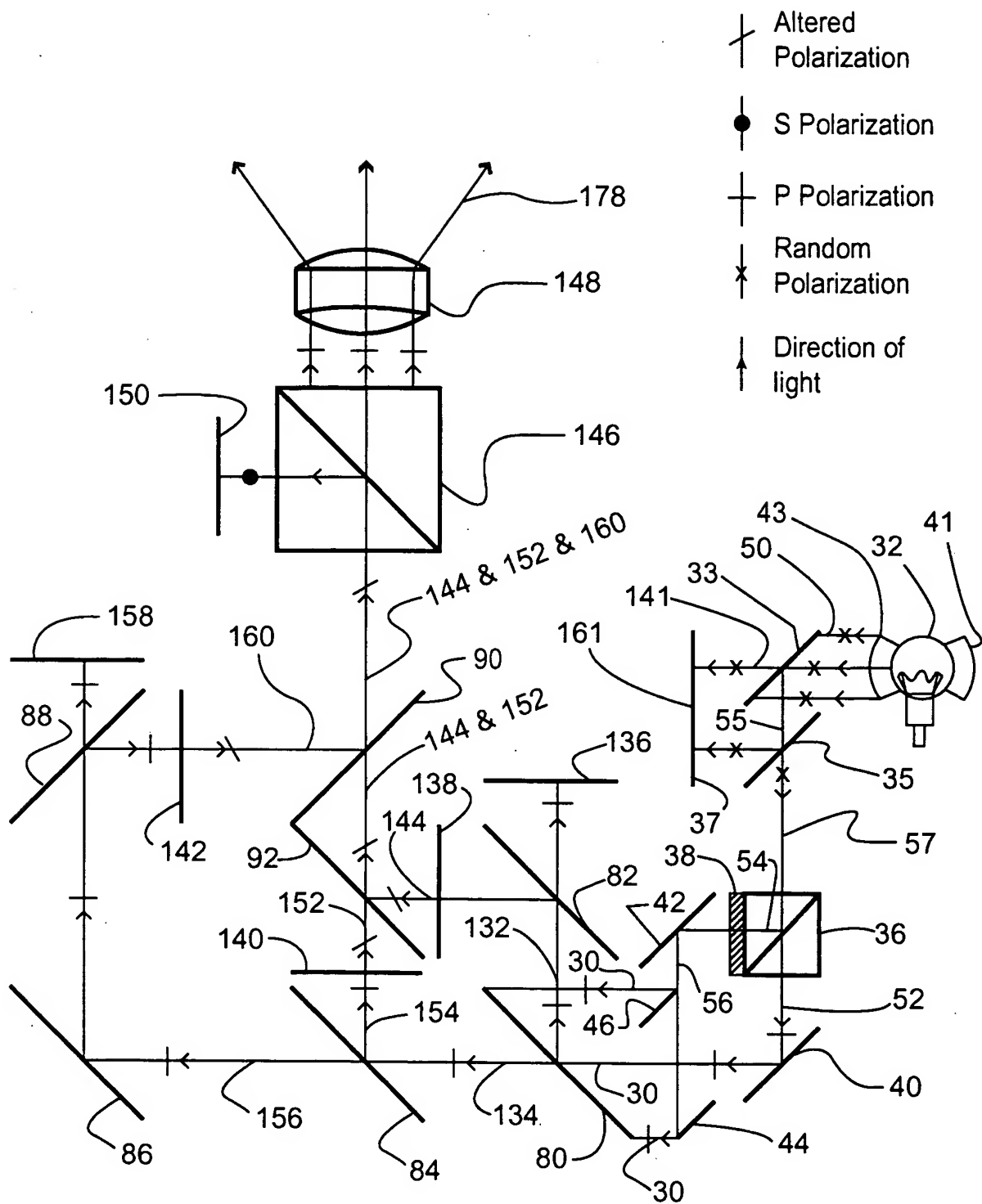




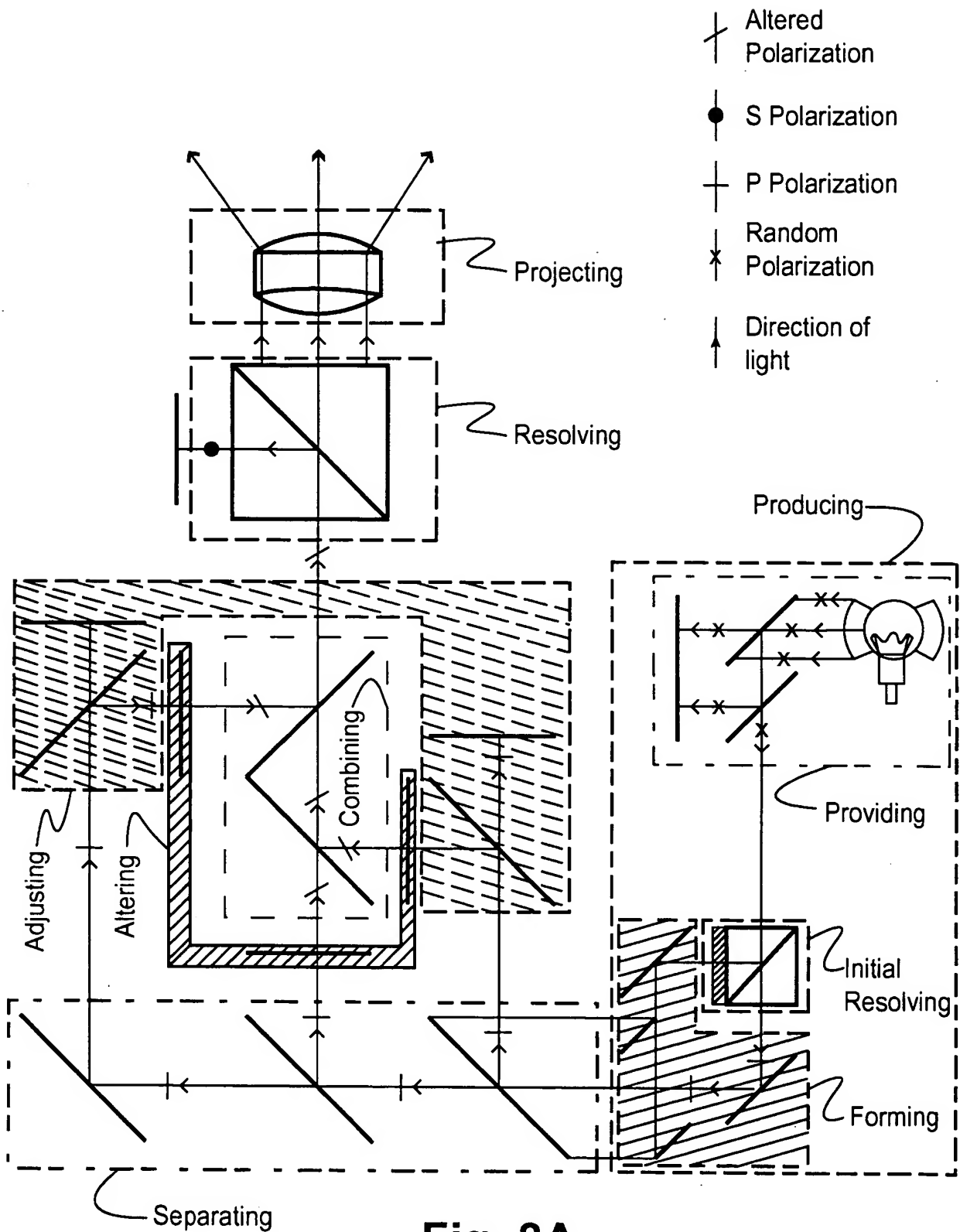
**Fig. 6**



**Fig. 7**

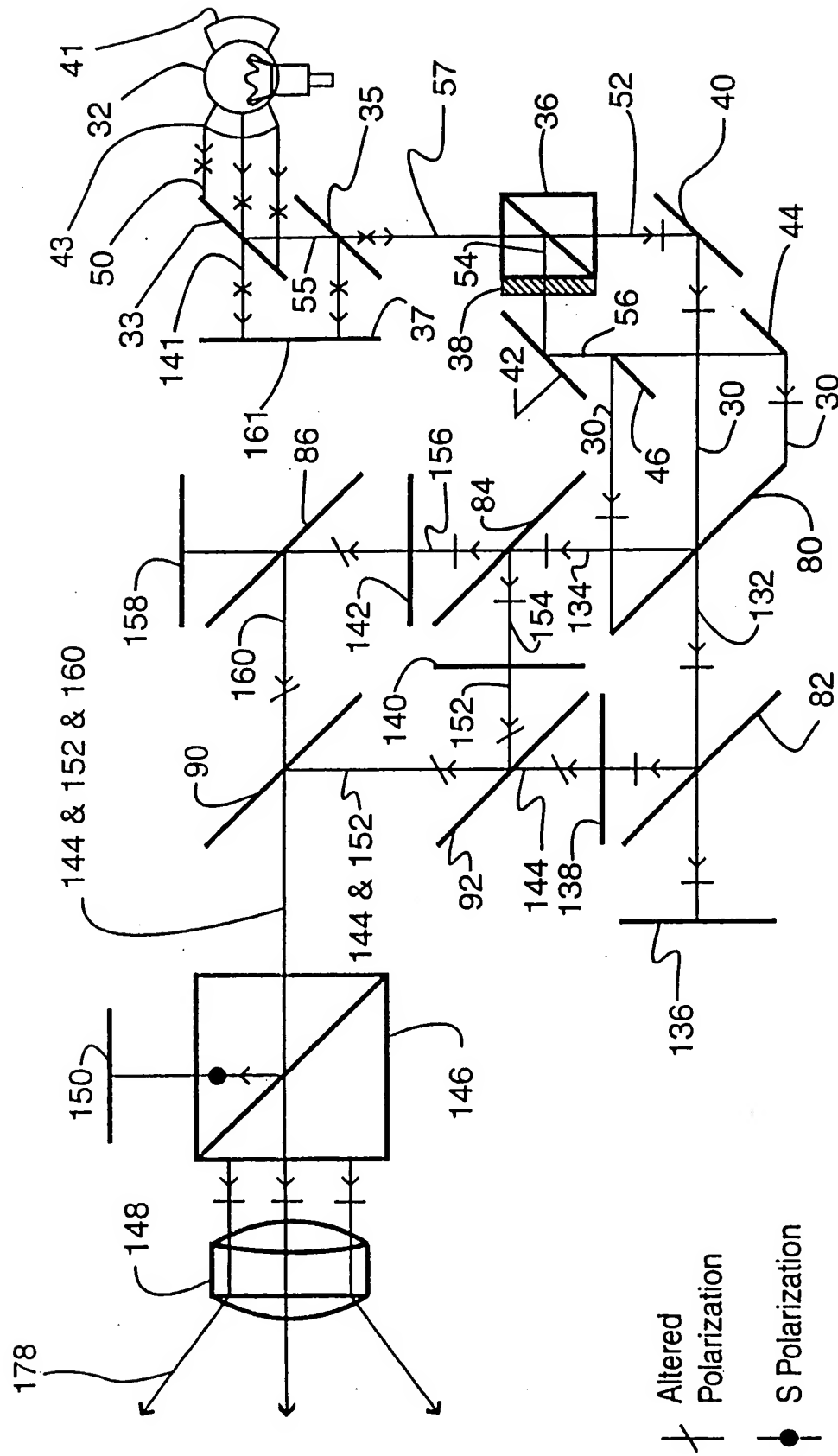


**Fig. 8**



**Fig. 8A**





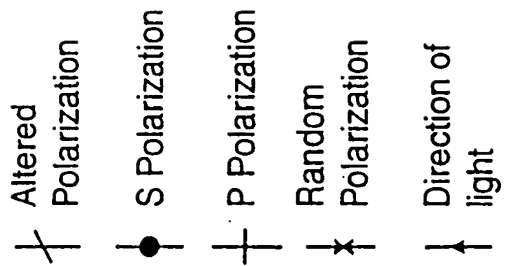
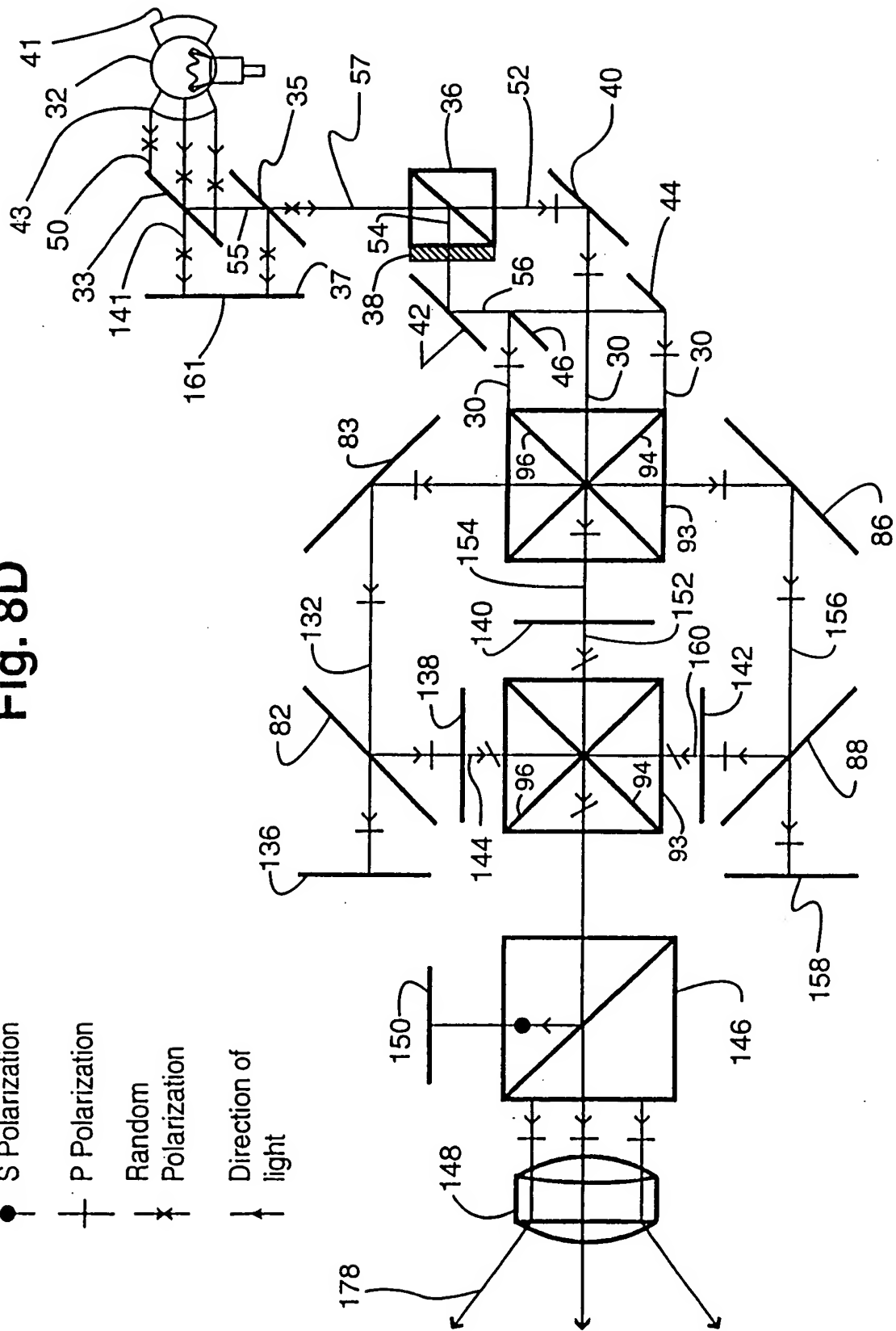
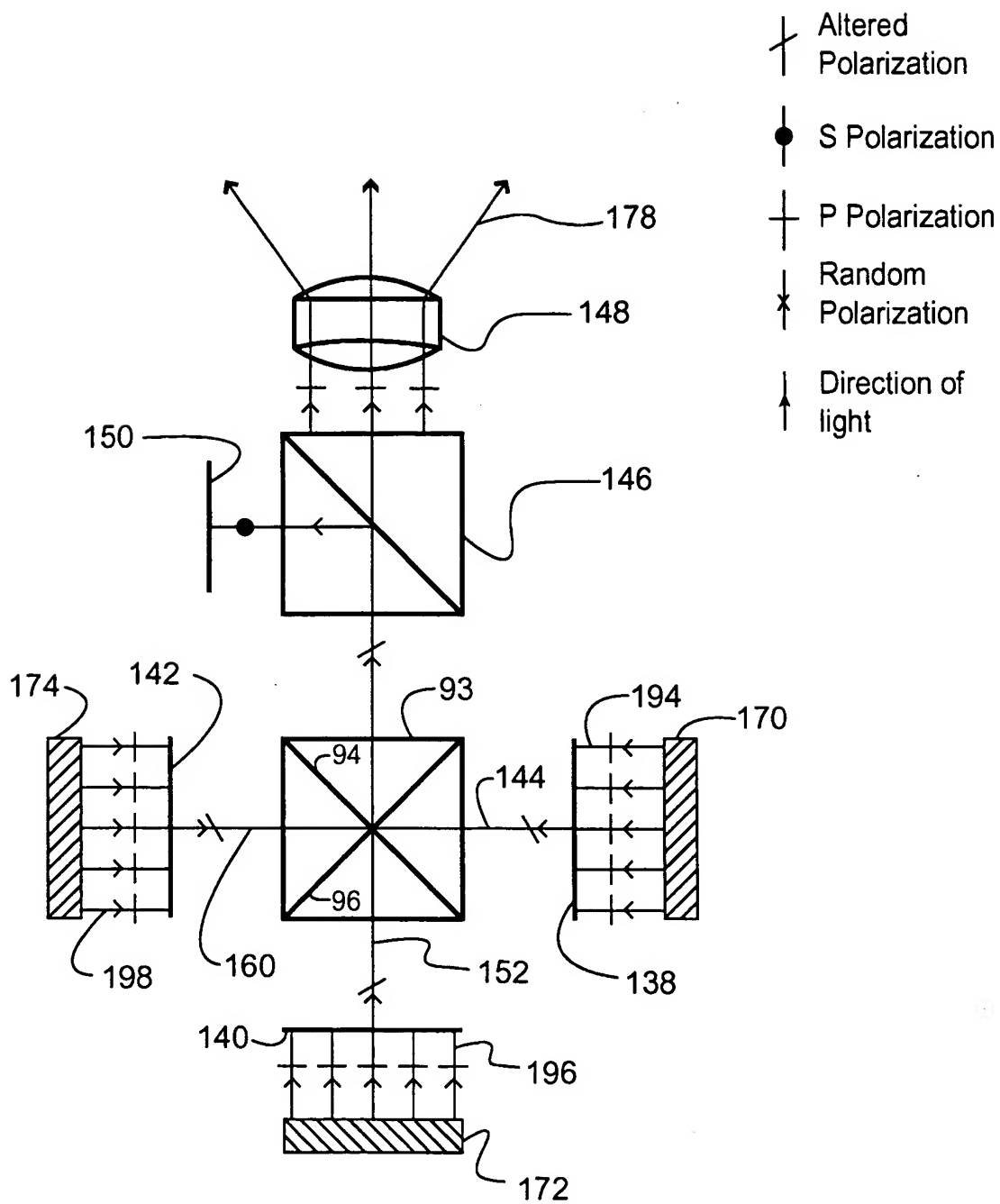
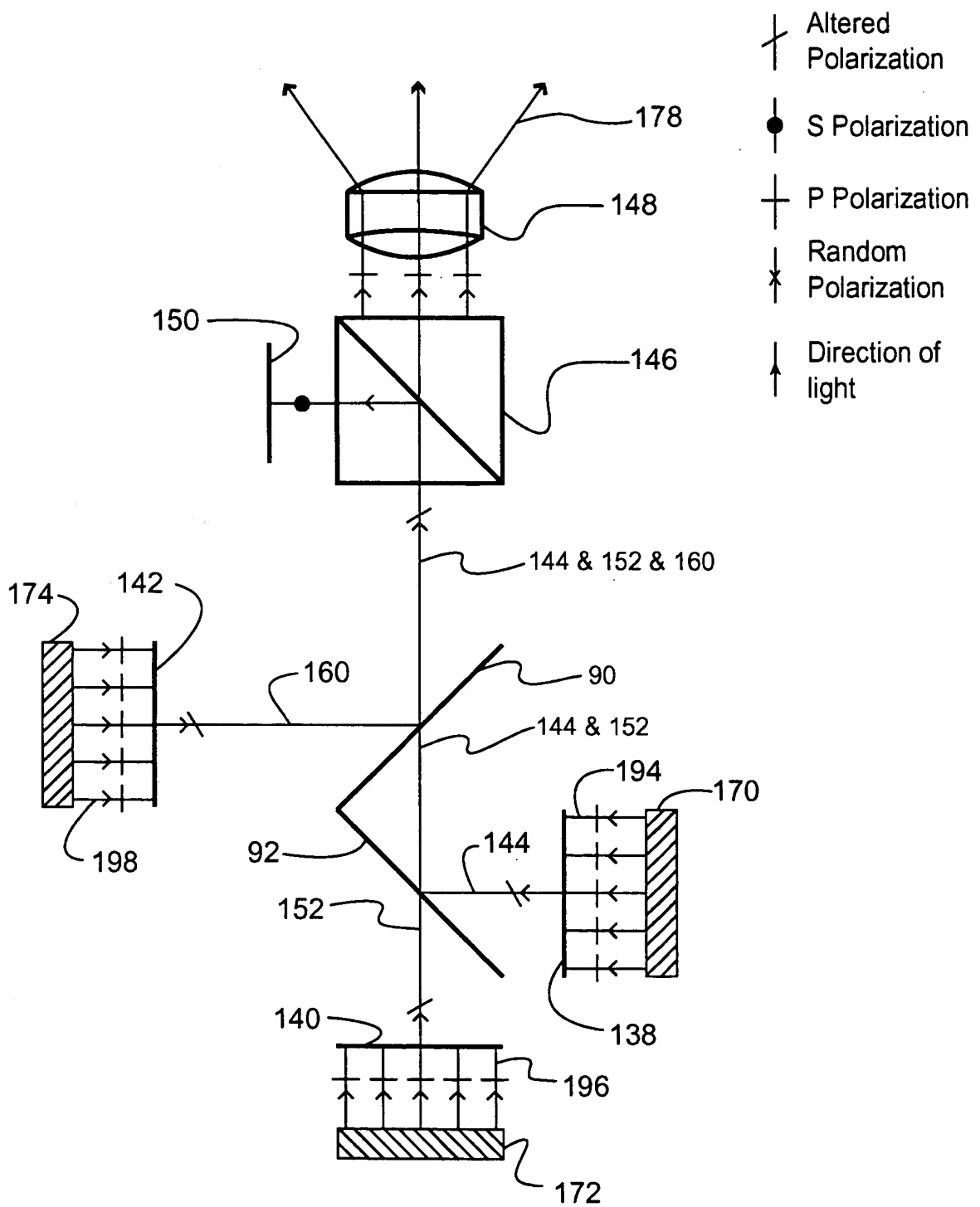


Fig. 8D



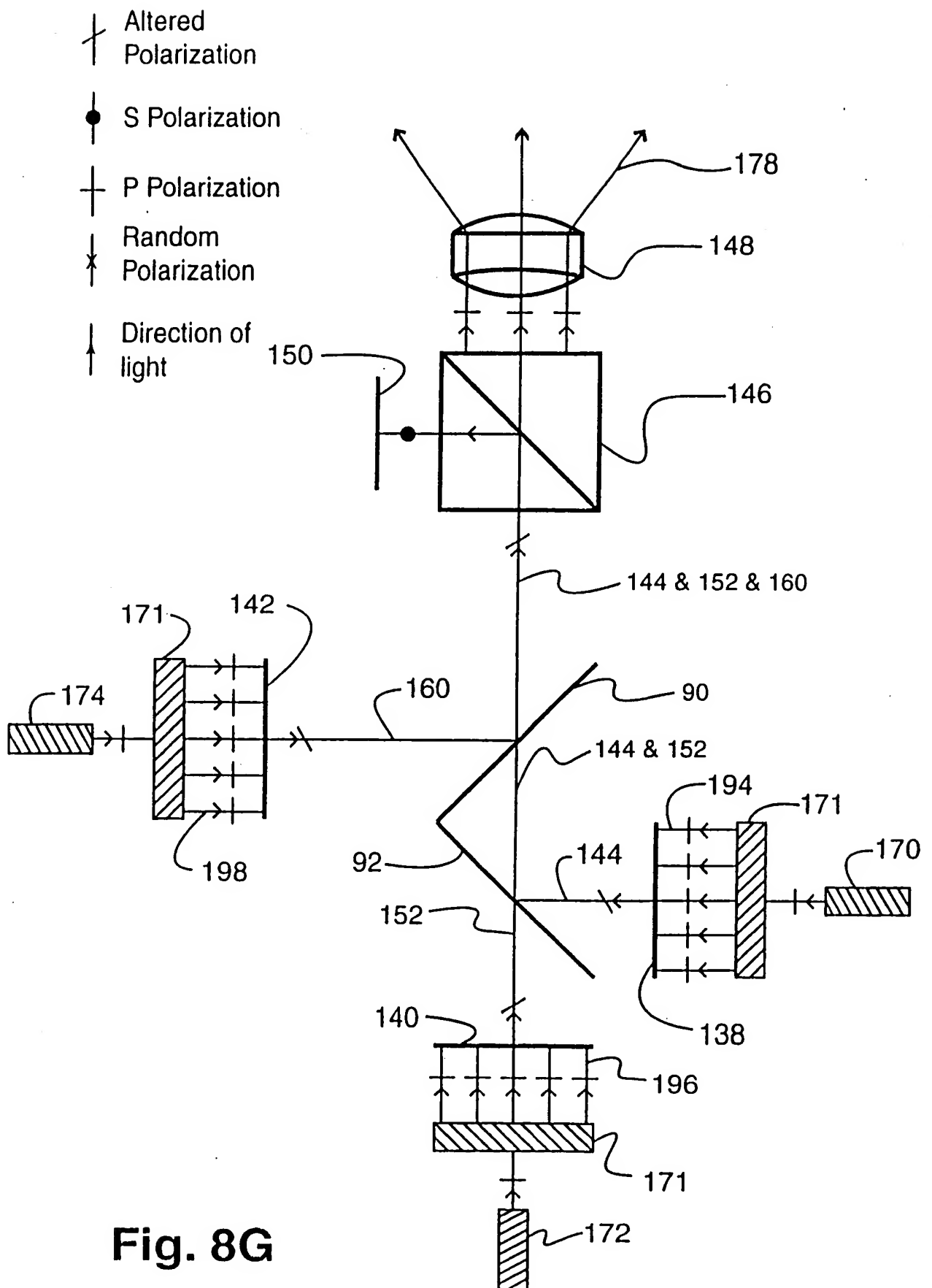


**Fig. 8E**

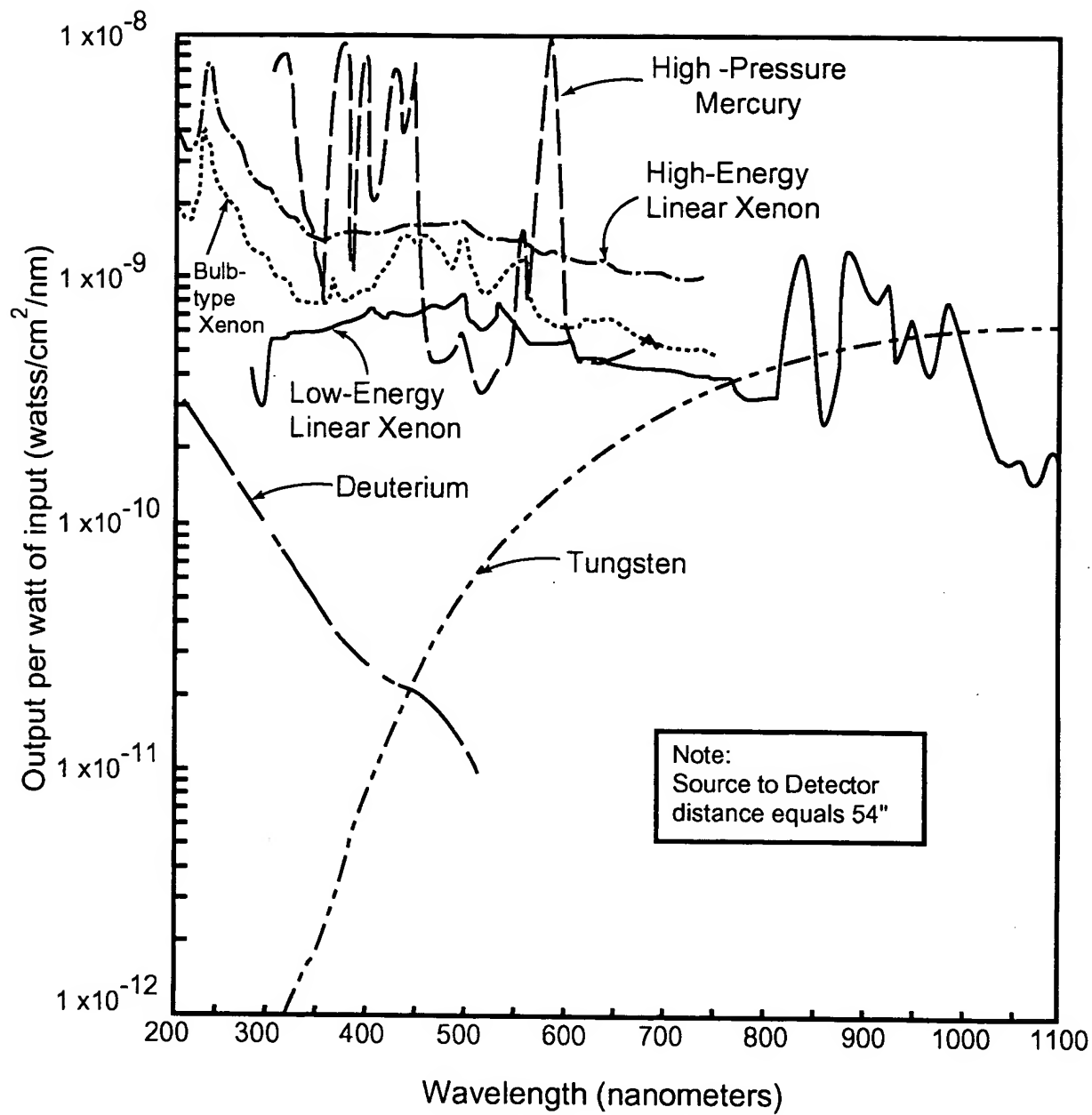


**Fig. 8F**





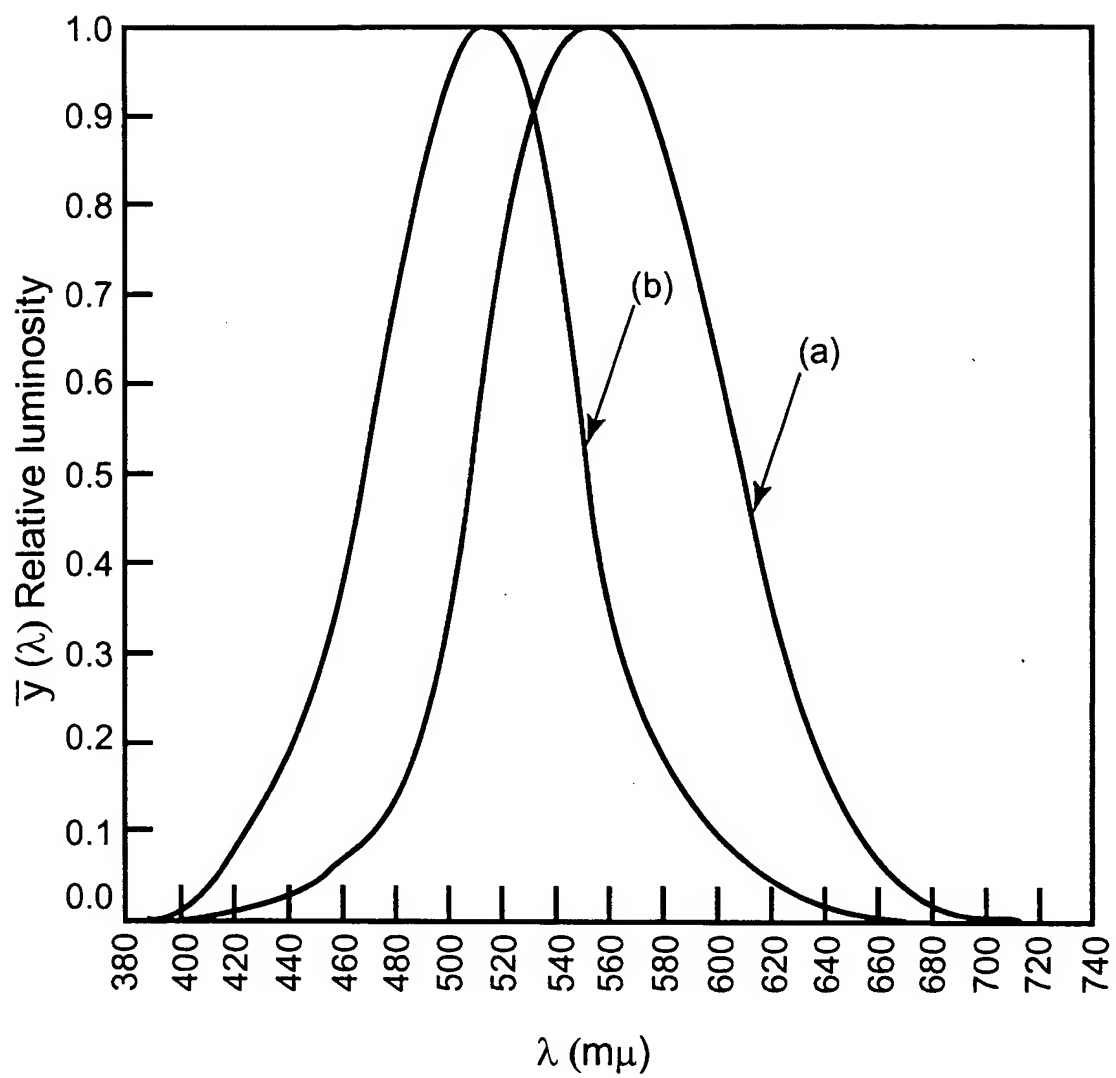
**Fig. 8G**



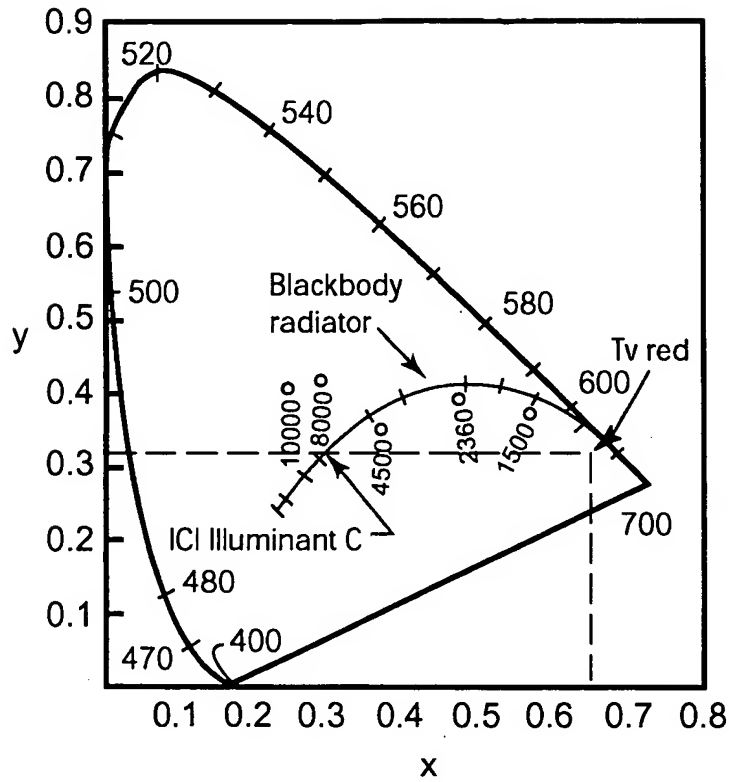
**Fig. 9**

SOURCE TYPE	LUMENS / WATT (1 PW)	APPARENT COLOR TEMP (°K)	SOURCE SIZE OR TYPE	AVERAGE LUMINANCE (cd/mm <sup>2</sup> )
<b>NATURAL (observed from earth)</b>				
Sun	—	5900K	—	1600
Moon	—	—	—	0.0025
Clear Sky	—	12,000 to 25,000K	—	0.008
Overcast Sky	—	6500K	—	0.002
Lightning Flash	—	—	—	8x10 <sup>4</sup>
<b>COMBUSTION</b>				
Candle flame	—	2000K	5x5mm	0.01
Kerosene Flame	—	—	8x8mm	0.012
Natural Gas Flame	—	—	12x12mm	0.004
Acetylene Flame	—	—	4x4mm	0.11
Photoflash Lamp	—	3800K	varies	160 to 400
<b>NUCLEAR</b>				
Atomic Fission Bomb	—	—	30 dia	2x10 <sup>6</sup>
Self-Luminous Points	—	—	—	2 or 3x10 <sup>-7</sup>
<b>CARBON ARC</b>				
Flame Flame	18	3800K	5x5mm	180
High Intensity	22	5500-6500K	8x8mm	500 to 1500
<b>ENCLOSED ARC</b>				
Compact high Pressure				
Mercury (100W)	20	8000K	0.25x0.2mm	1700
Mercury (200W)	50	7000K	0.6x2.2mm	400
Mercury-Xenon (1000W)	50	6000K	1.5x4.2mm	350
Xenon(150W)	19	6000K	0.5x1.9mm	180
Xenon(1600W)	37.5	6000K	1.4x4.0mm	800
Xenon(20,000W)	57	6000K	3x11mm	4800
Metal Halide				
HMI(1200W)	92	5600K	2.5x13mm	120
CSI (1000W)	80	4200K	5x9mm	80
CID (1000W)	62	5500K	5x9mm	65
MARC 300	45	5000K	1x3mm	400
Zirconium	2.5	3200K	1.5mm dia	46
Argon	17	7000K	3x10mm	1400
High Intensity Discharge (HID)				
Clear Mercury (400W)	52	6000K	20x68mm	1.5
Metal Halide (400W)	85	4500K	20x40mm	4.2
High Pressure Sodium (400W)	125	2100K	8.8x87mm	6.5
Low Pressure				
Fluorescent (cool white)				
430 ma	80	4300K	T12 Bulb	0.008
800 ma	82	4300K	T12 Bulb	0.011
1500 ma	70	4300K	T12 Bulb	0.017
Sodium	150	1700K		.1
<b>ELECTROLUMINESCENT</b>				
Green @ 60 Hertz Green	—	—	—	3x10 <sup>-5</sup>
Green @ 400 Hertz Green	—	—	—	7x10 <sup>-5</sup>
<b>INCANDESCENT</b>				
Carbon Filament	3	2000K	C6 or C8	0.5
Tantalum filament	6	2200K	C6 or C8	0.7
Tungsten Filament				
Vacuum Lamp	10	2600K	C6 or C8	2.0
Gas Filled Lamps	20	3000K	CC6 or CC8	12
(includes tungsten	26	3200K	CC6 or CC8	24
halogen lamps)	33	4300K	CC6 or CC8	36

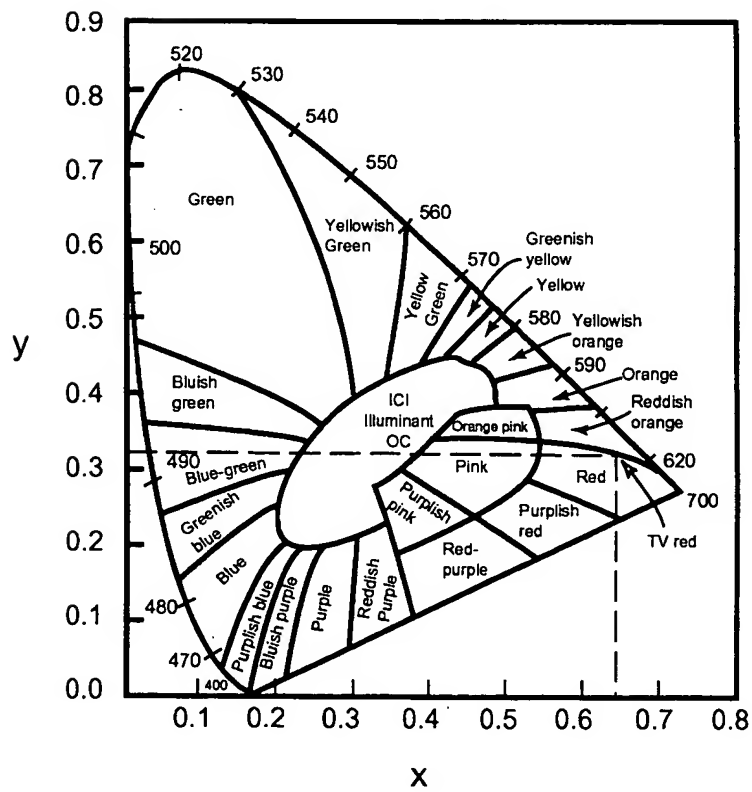
**Fig. 9A**



**Fig. 10**



**Fig. 10A**



**Fig. 10B**

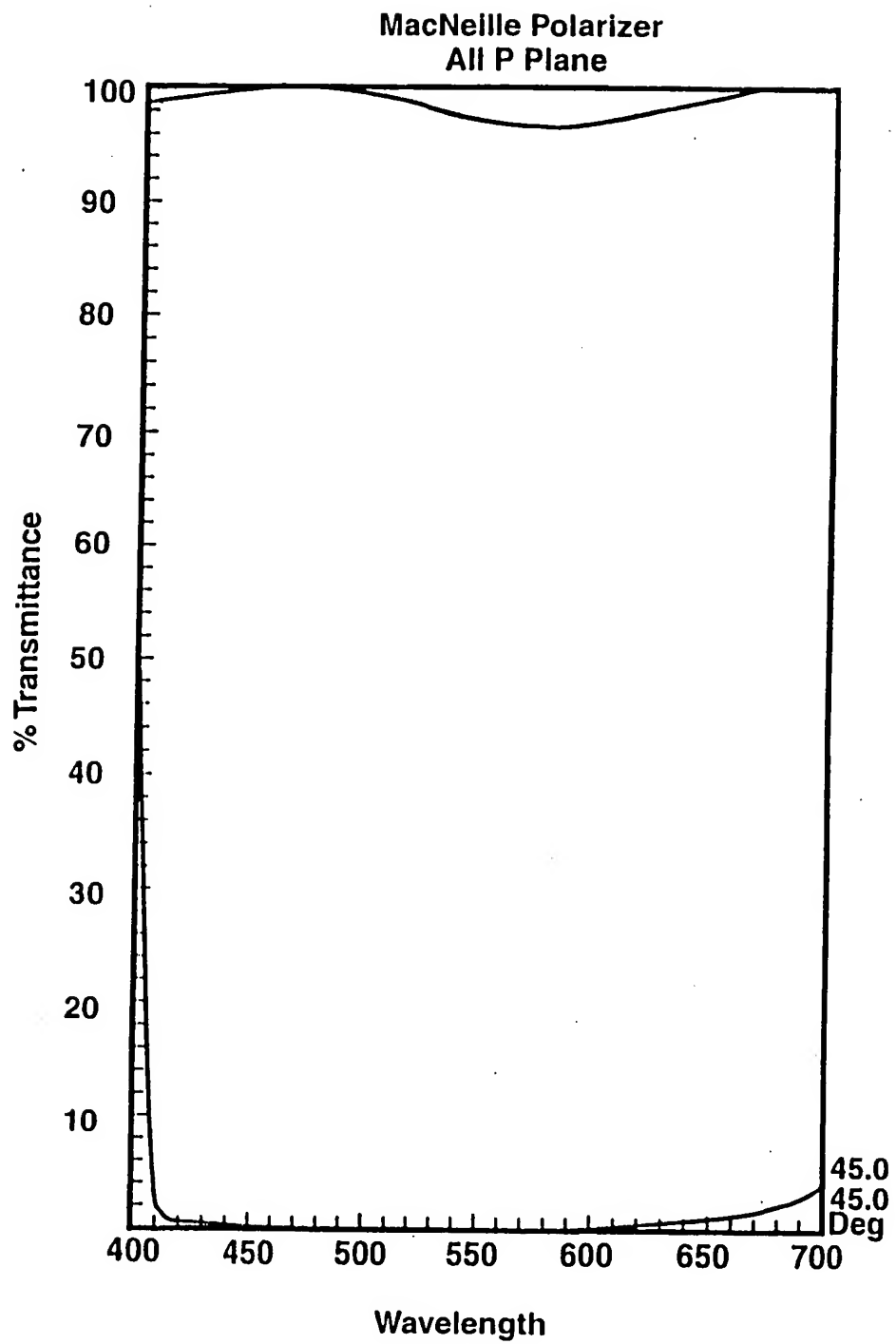
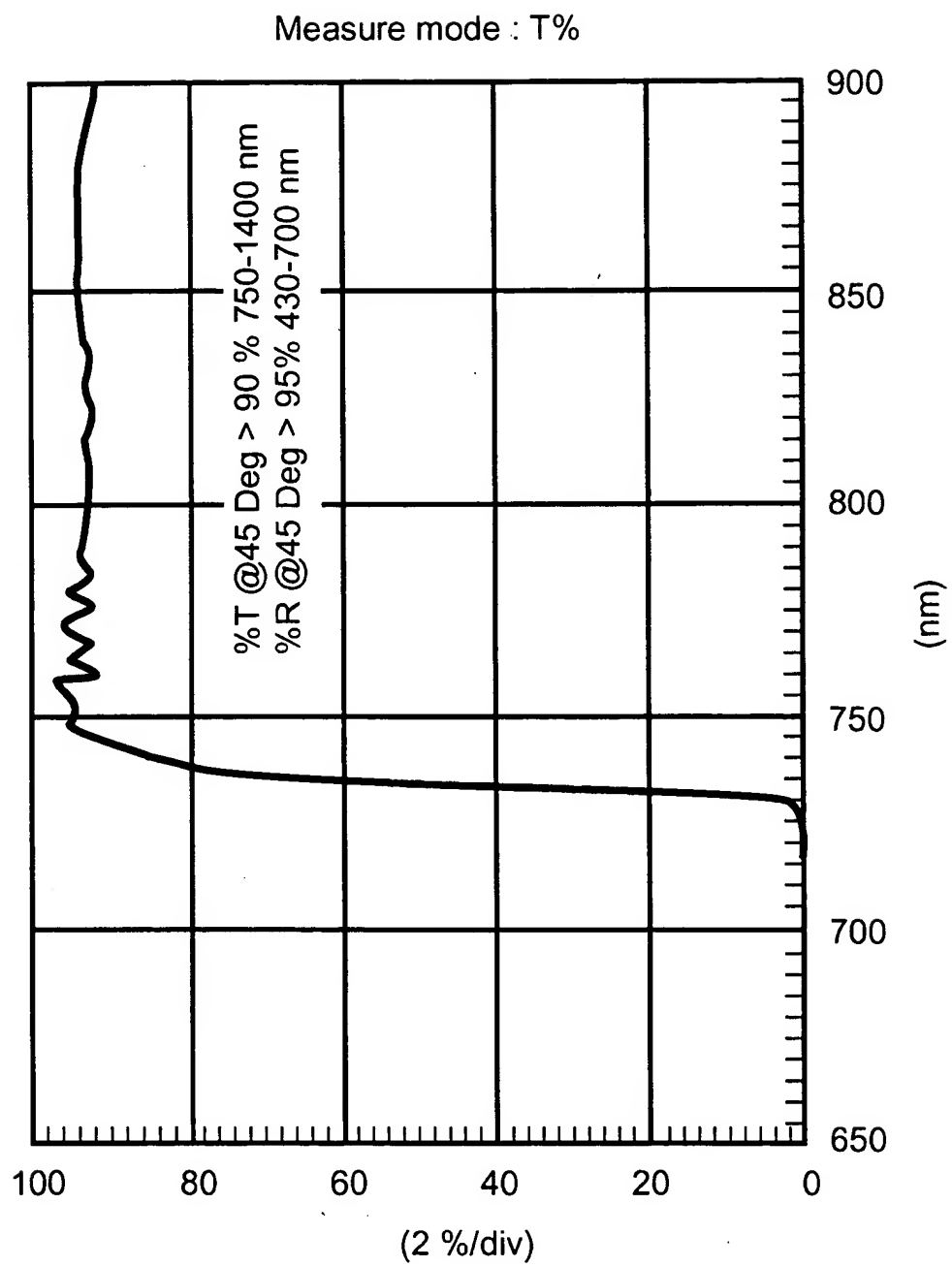
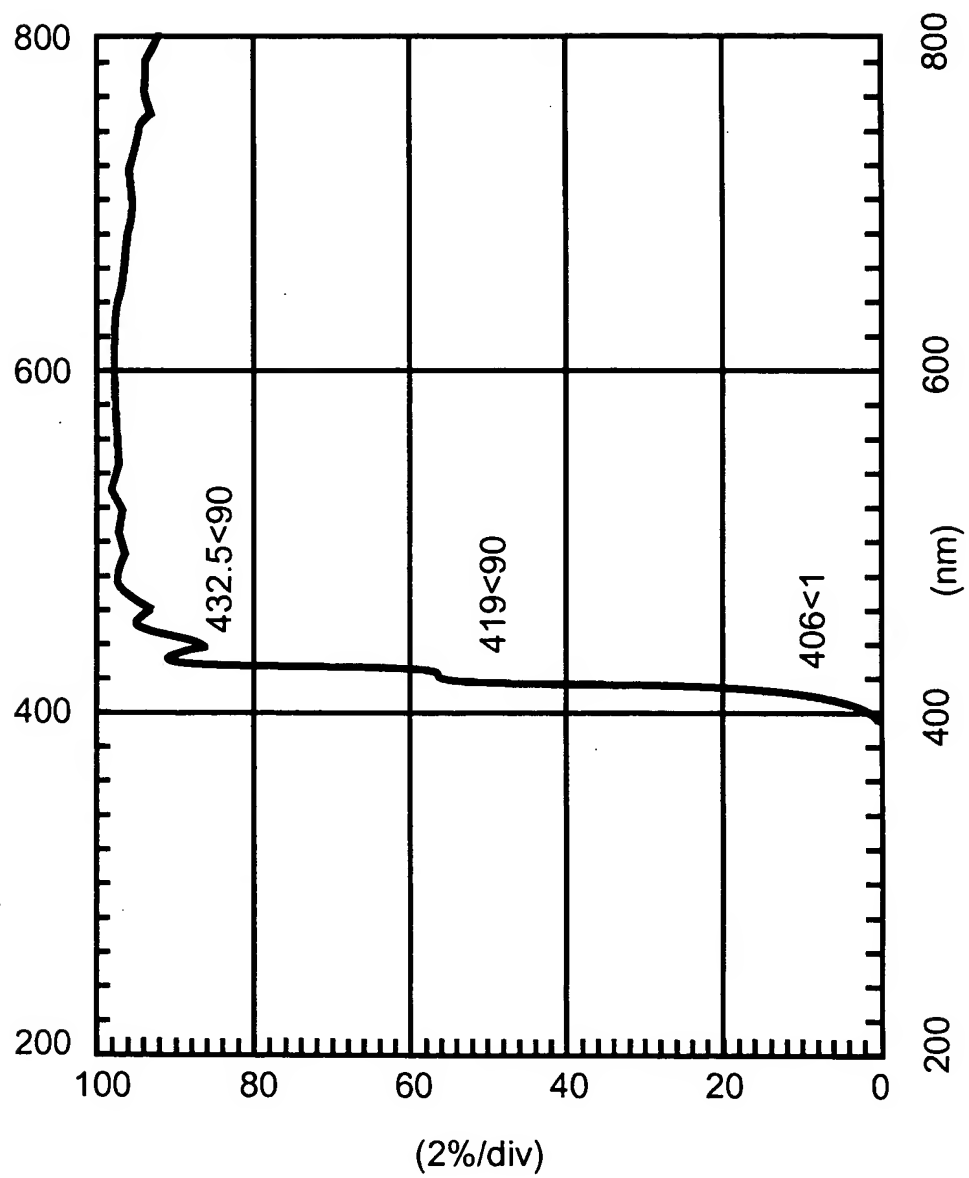


Fig. 11

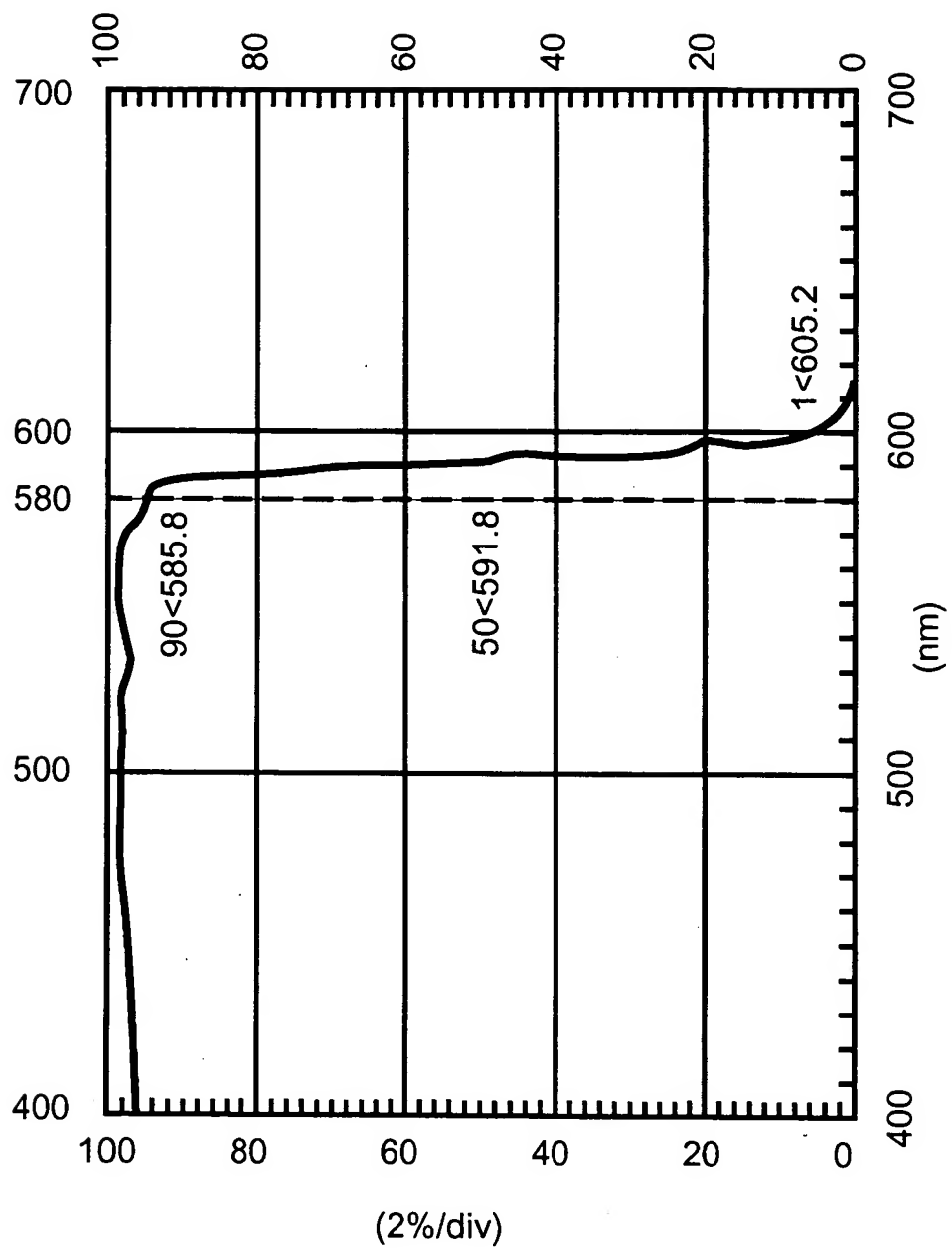


**Fig. 12**

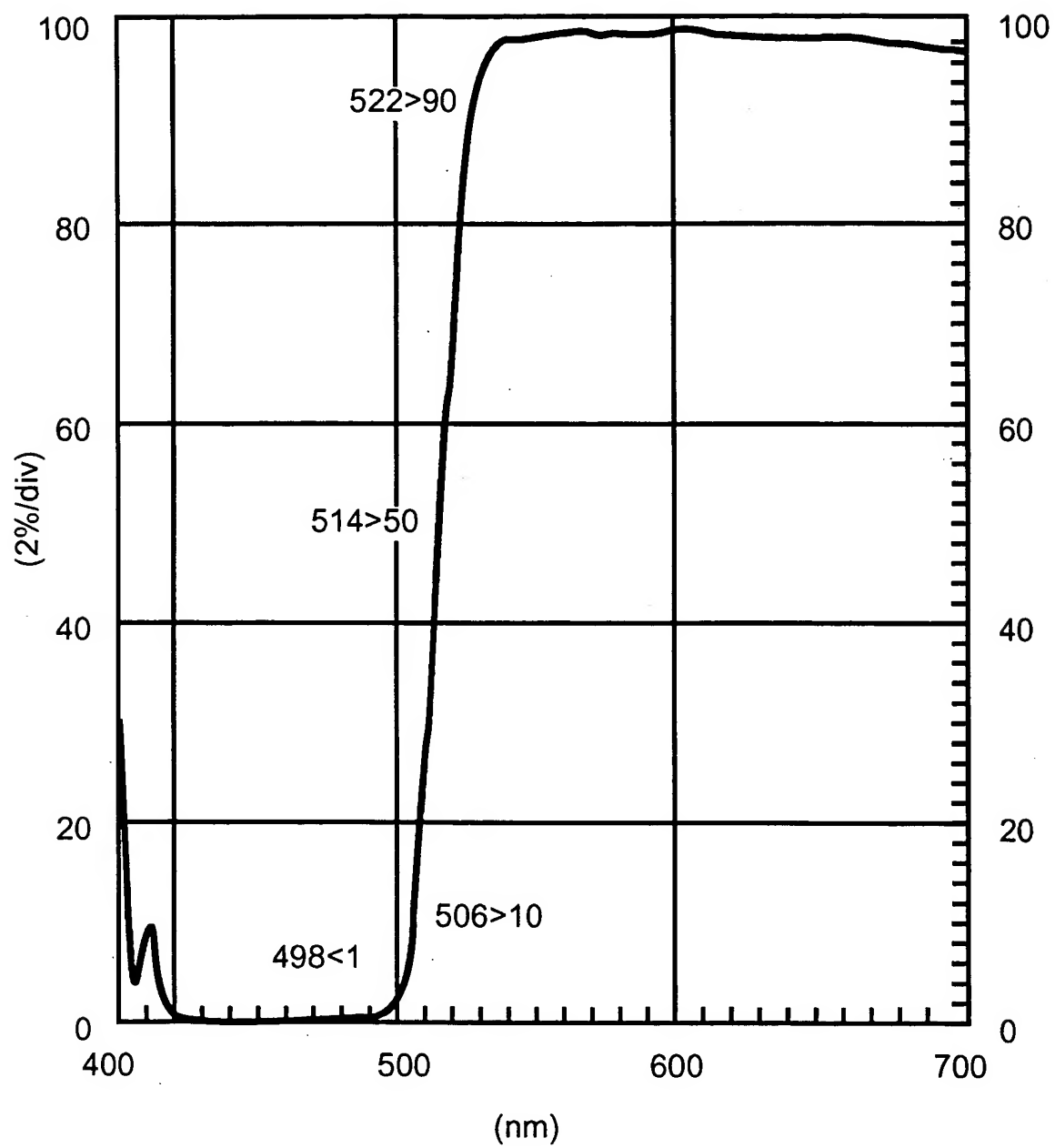


**Fig. 13**

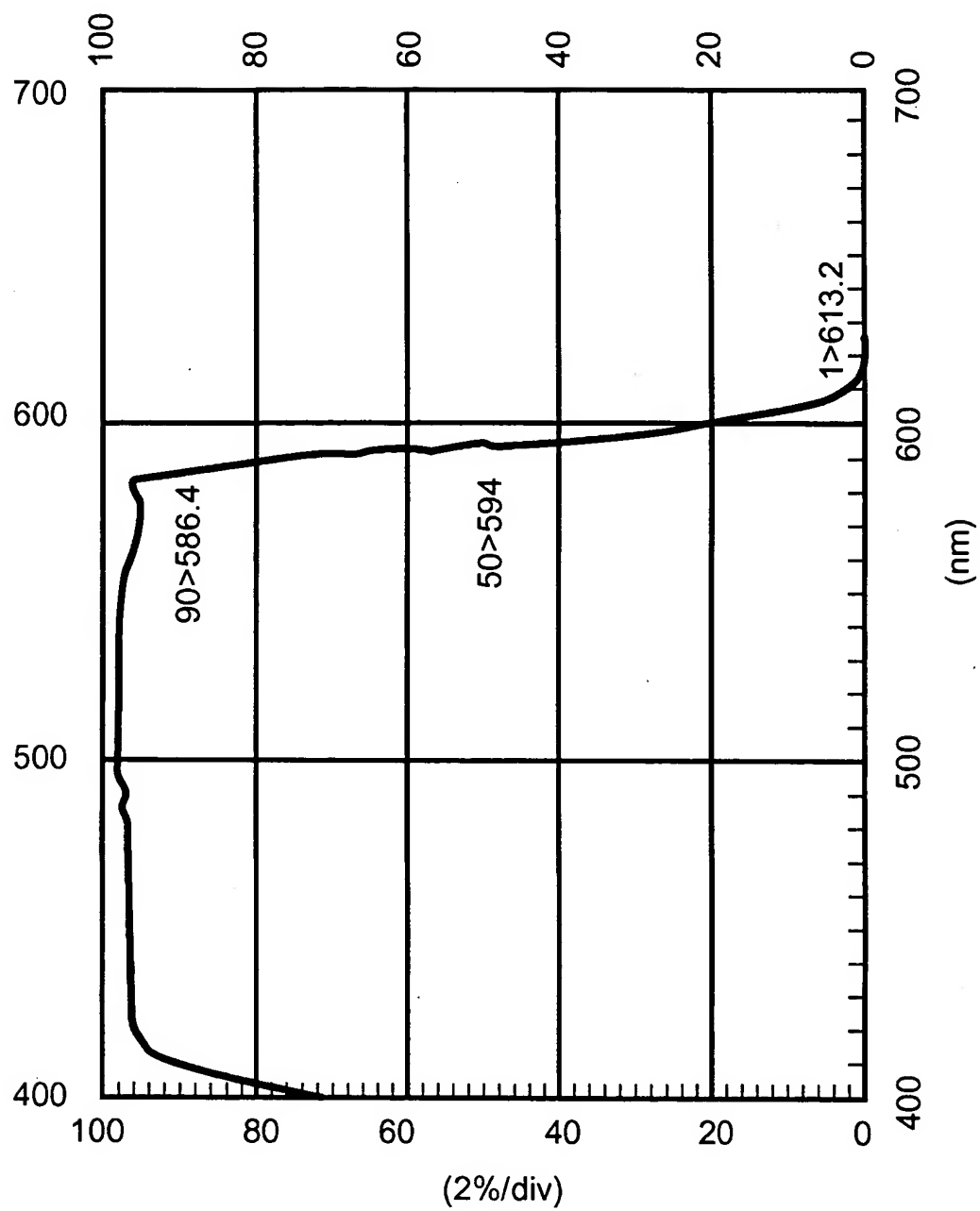




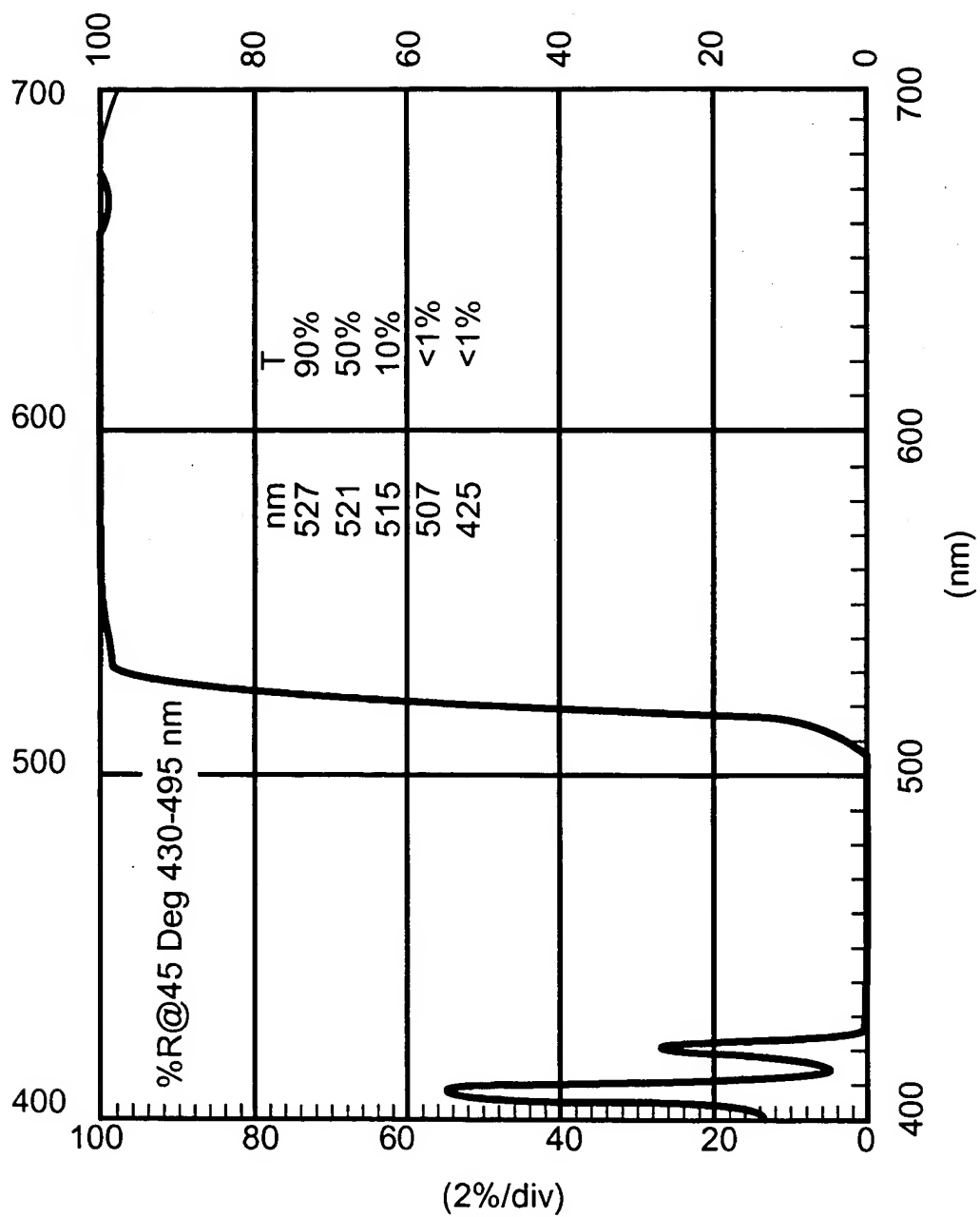
**Fig. 14**



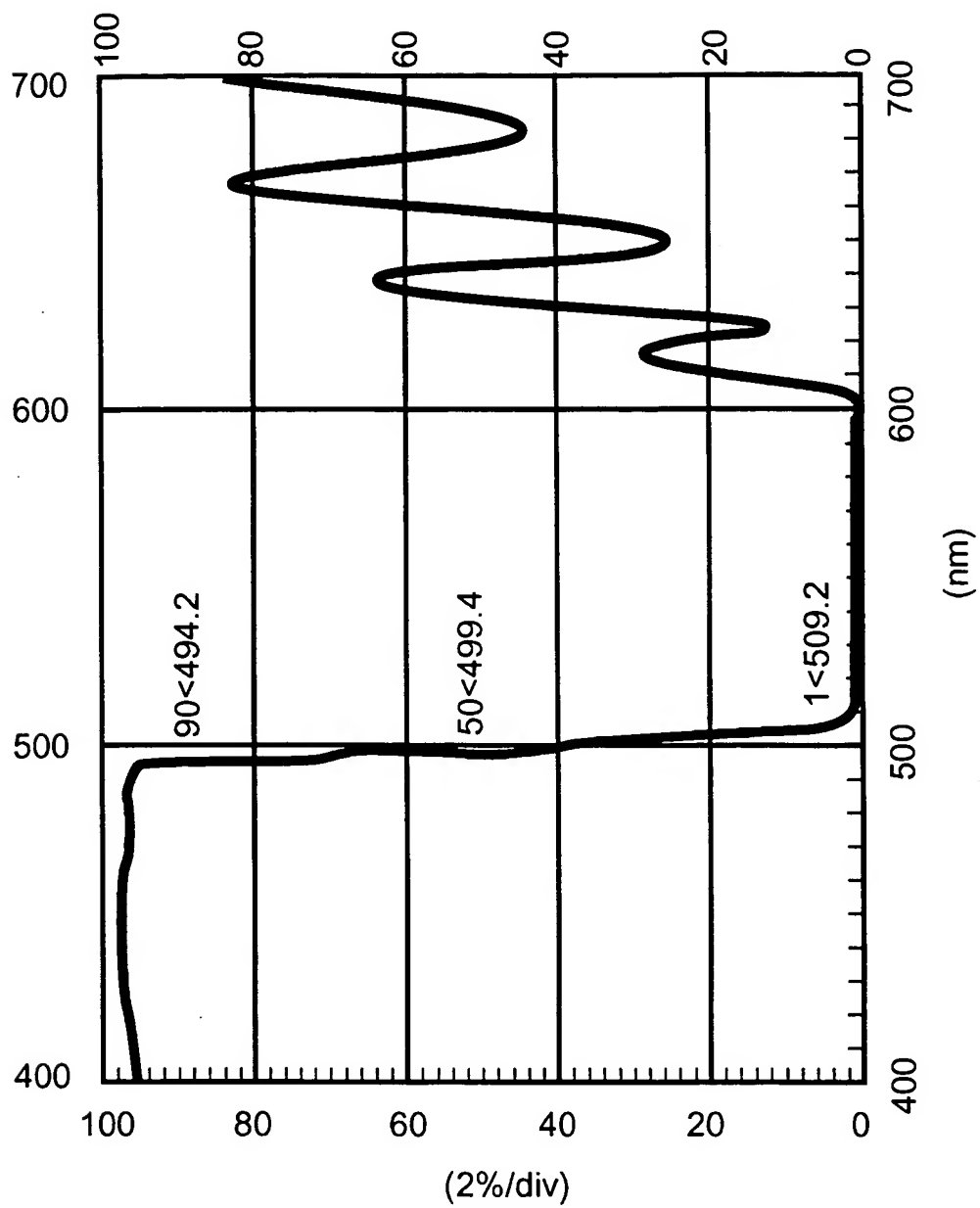
**Fig. 15**



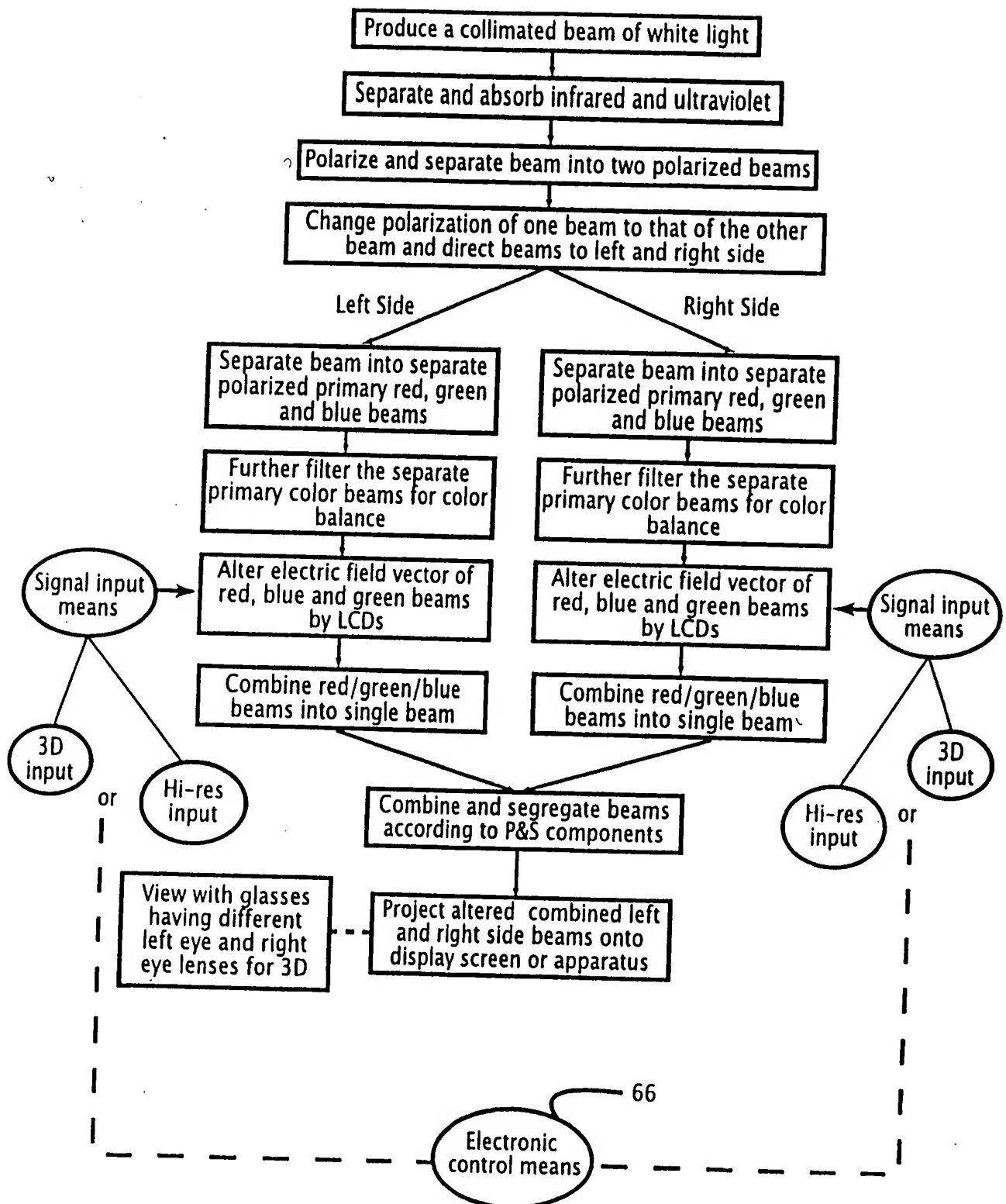
**Fig. 16**



**Fig. 17**



**Fig. 18**



**Fig. 19**

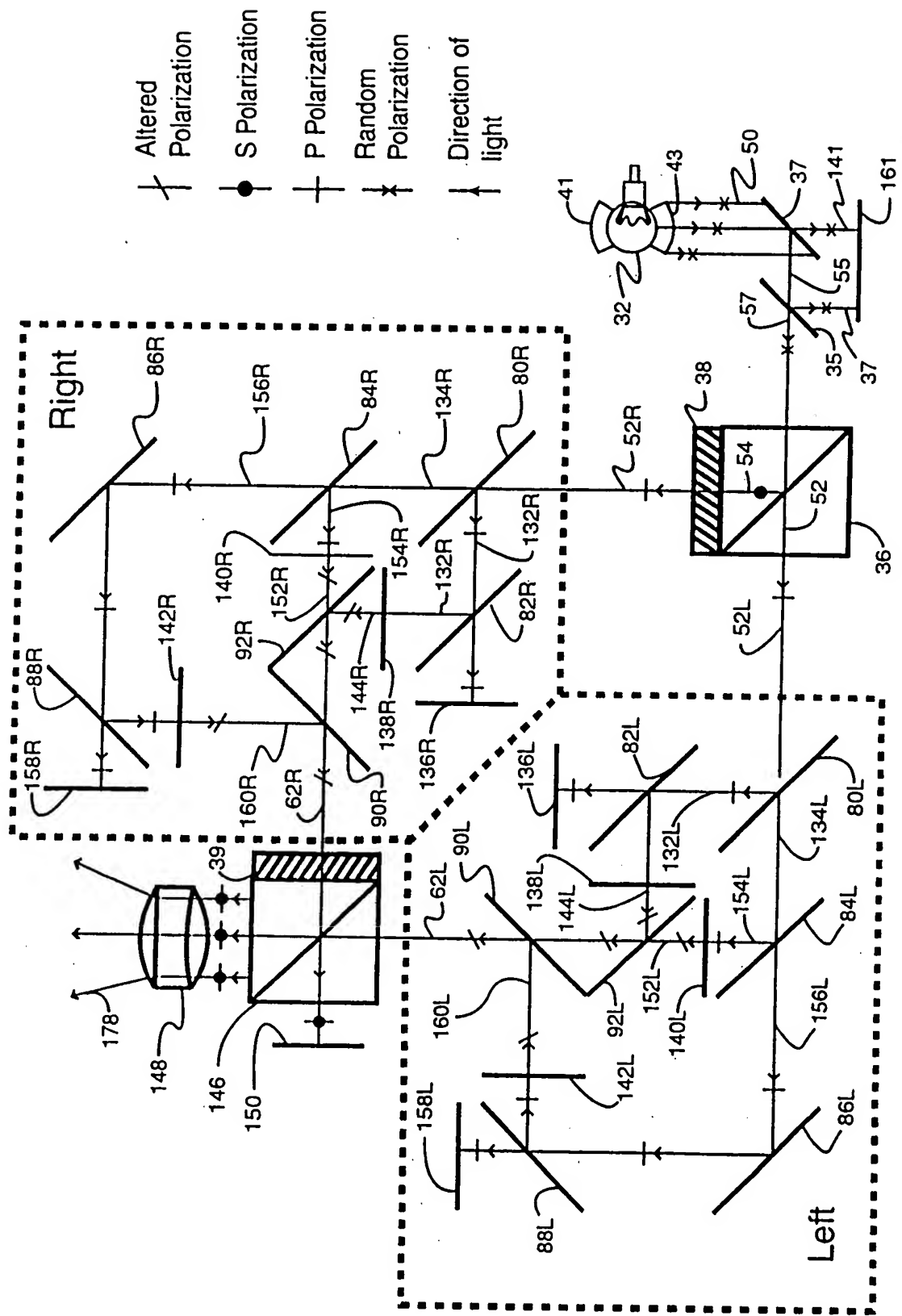


Fig. 20

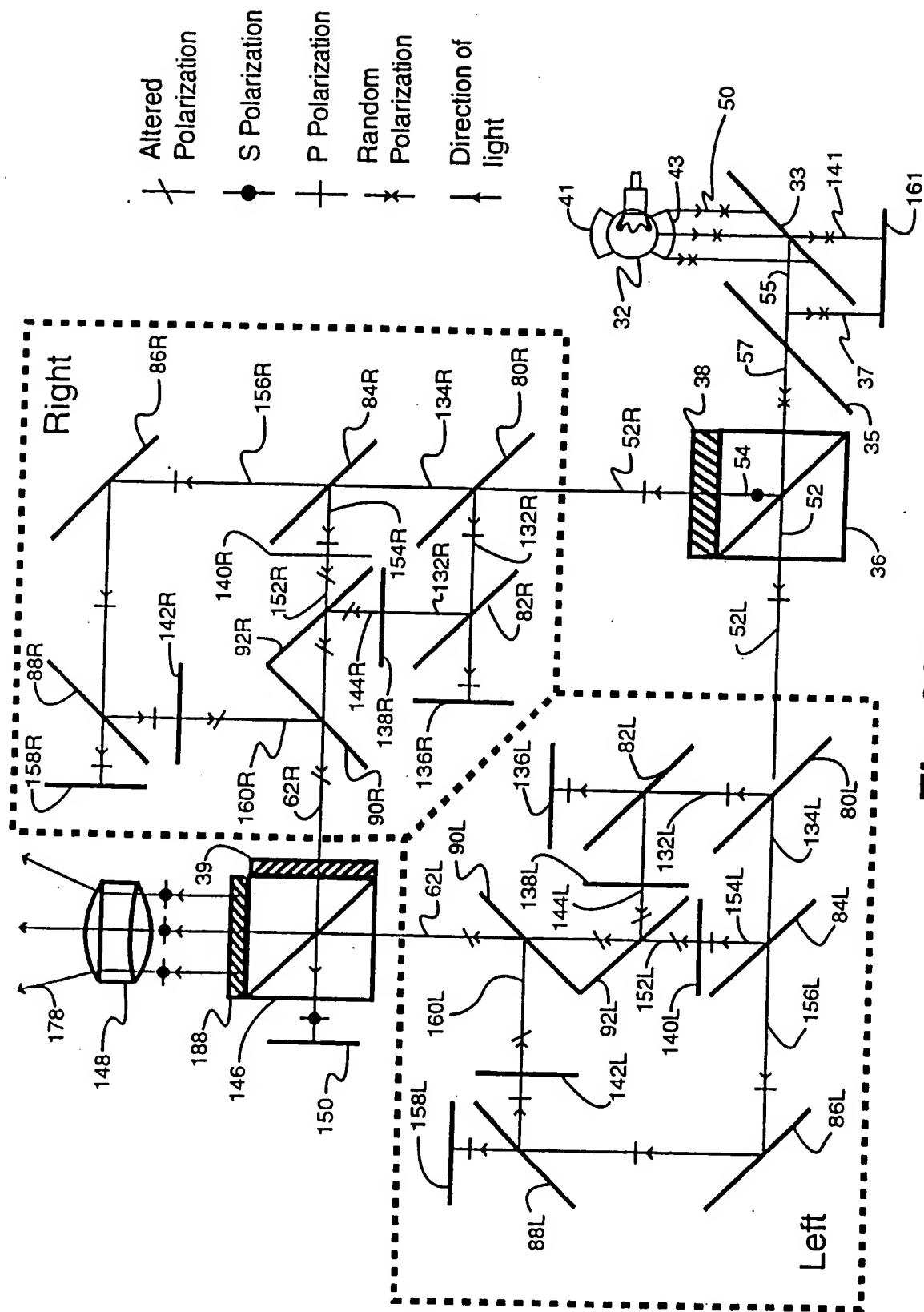


Fig. 20A



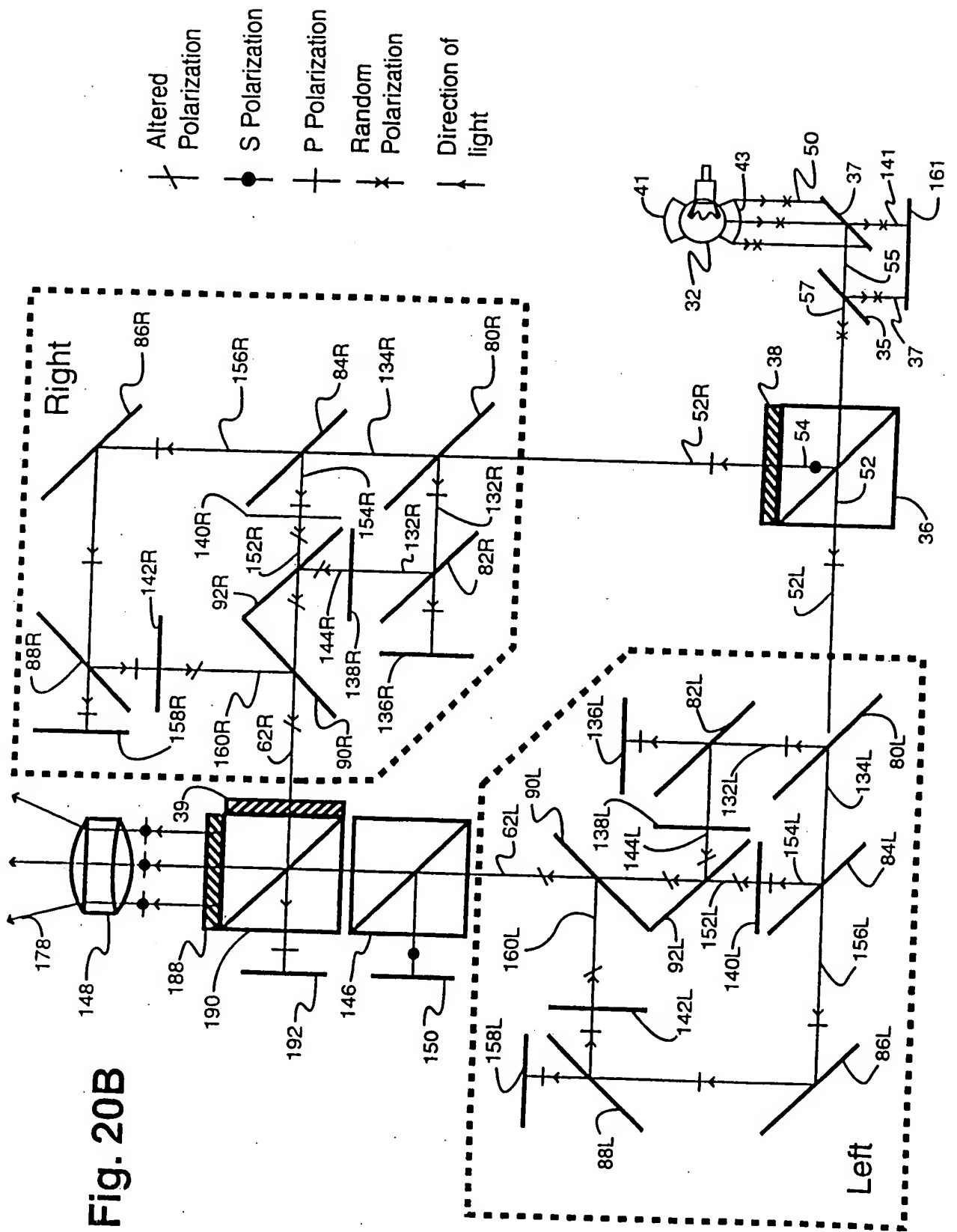
**Fig. 20B**

Altered Polarization  
S Polarization  
P Polarization  
Random Polarization  
Direction of light

Left

Right

Fig. 20B is a schematic diagram of an optical system for measuring the polarization state of light. The system is divided into two main channels, labeled "Left" and "Right", which are enclosed in dashed boxes. The "Left" channel includes a series of optical components: a waveplate 86L, a polarizing beam splitter 156L, a waveplate 84L, a polarizing beam splitter 134L, a waveplate 80L, a waveplate 142L, a waveplate 92L, a waveplate 140L, a waveplate 152L, a waveplate 132L, a waveplate 154L, a waveplate 136L, a waveplate 144L, a waveplate 138L, a waveplate 160L, a waveplate 158L, a waveplate 148, a waveplate 178, a waveplate 188, a waveplate 190, a waveplate 192, a waveplate 146, a waveplate 150, and a waveplate 162L. The "Right" channel includes a series of optical components: a waveplate 86R, a polarizing beam splitter 156R, a waveplate 84R, a polarizing beam splitter 134R, a waveplate 80R, a waveplate 142R, a waveplate 92R, a waveplate 140R, a waveplate 152R, a waveplate 132R, a waveplate 154R, a waveplate 136R, a waveplate 144R, a waveplate 138R, a waveplate 160R, a waveplate 158R, a waveplate 148, a waveplate 178, a waveplate 188, a waveplate 190, a waveplate 192, a waveplate 146, a waveplate 150, and a waveplate 162R. The system also includes a light source 41, a beam splitter 32, a series of mirrors and waveplates (37, 50, 55, 141, 161), a polarizing beam splitter 36, and a detector 54. The diagram illustrates the path of light through these components and the resulting polarization state at various points.



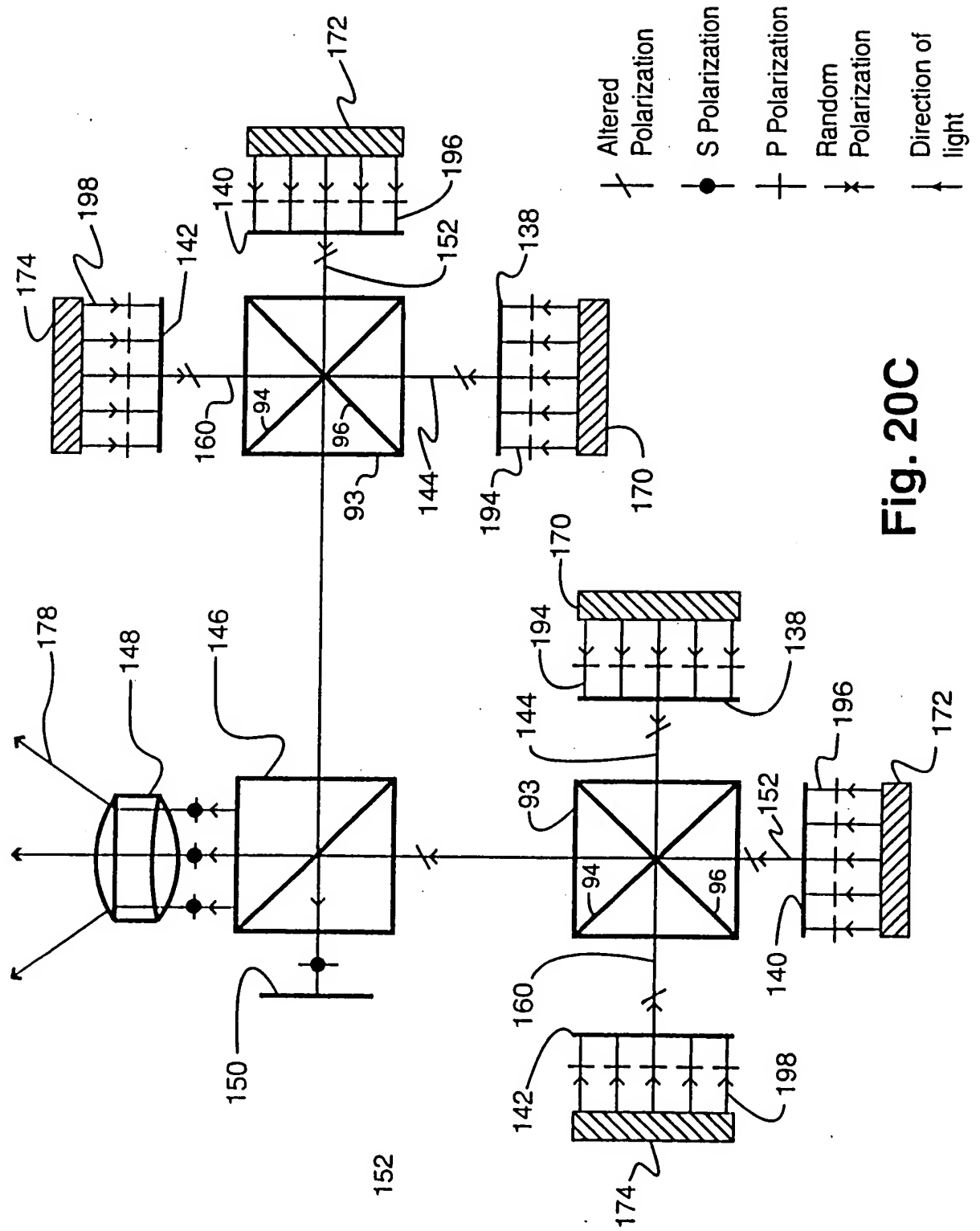


Fig. 20C

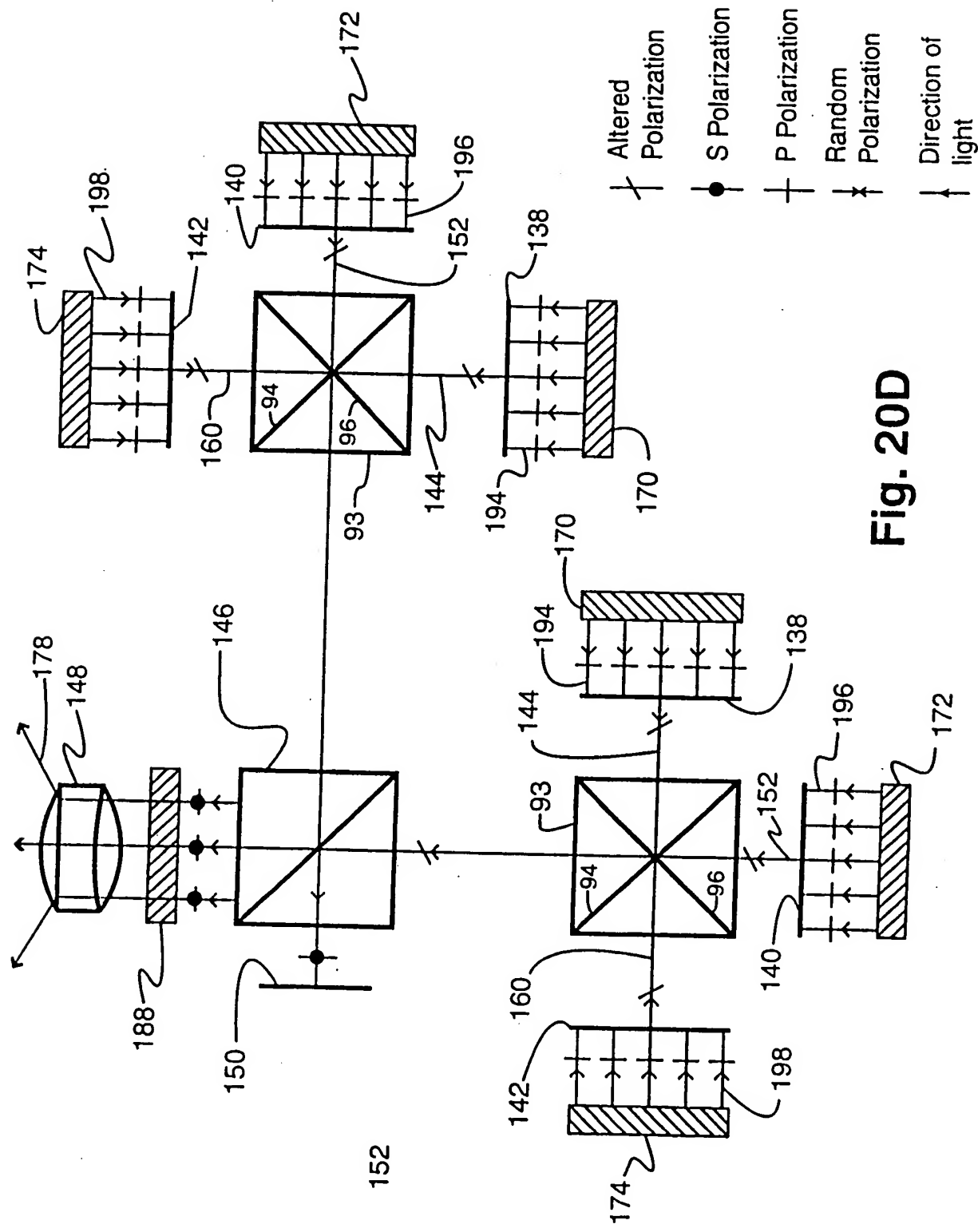
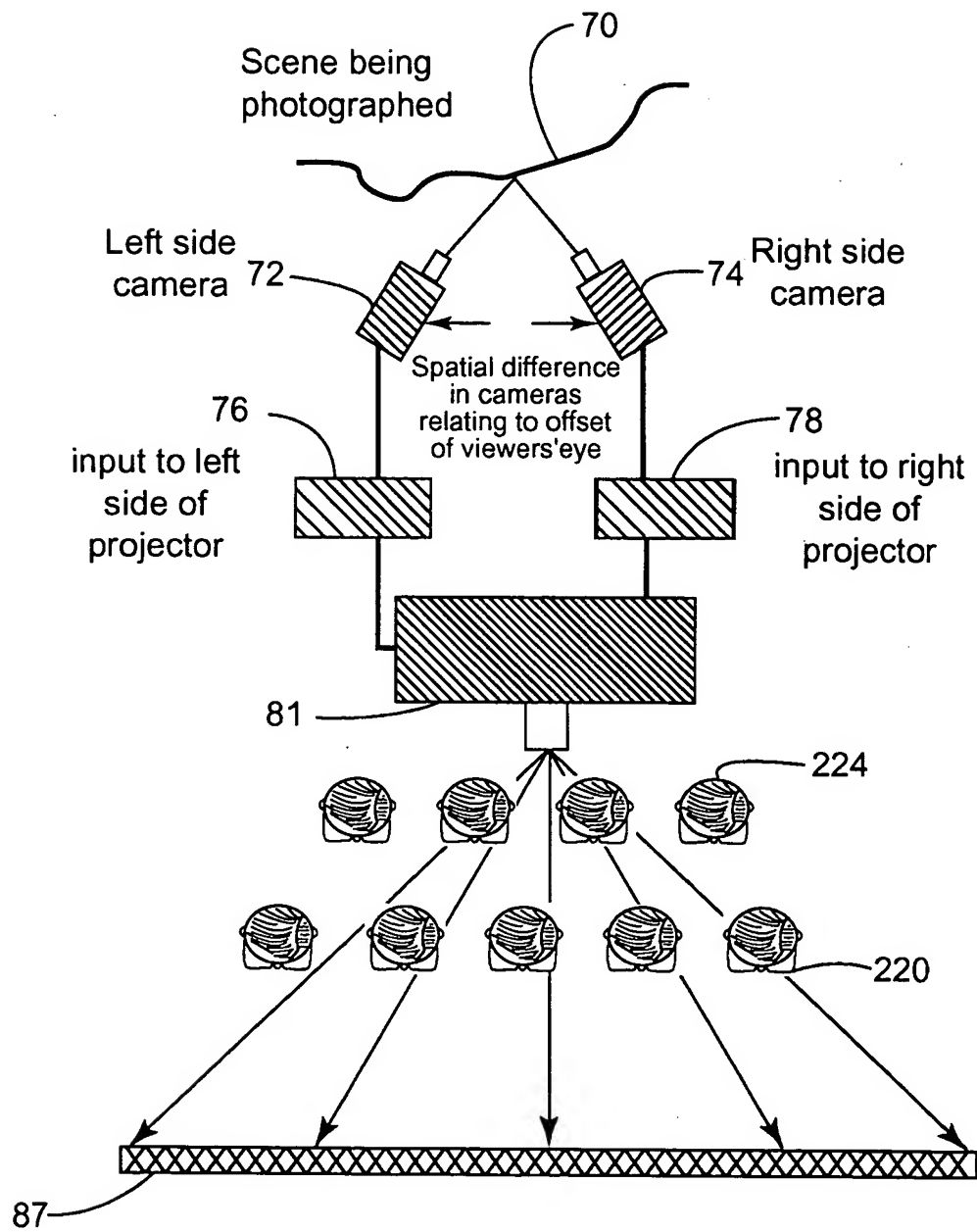
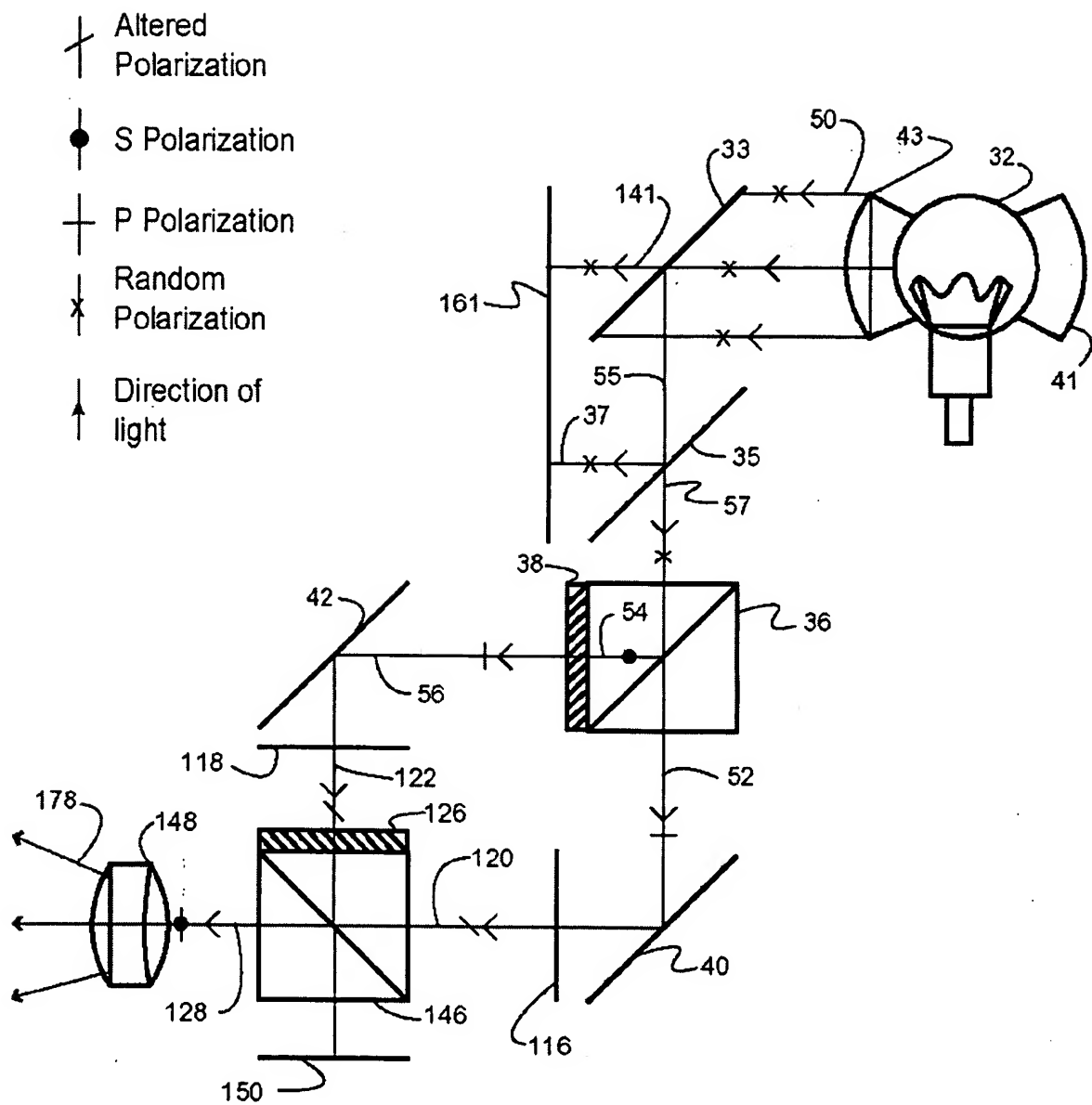


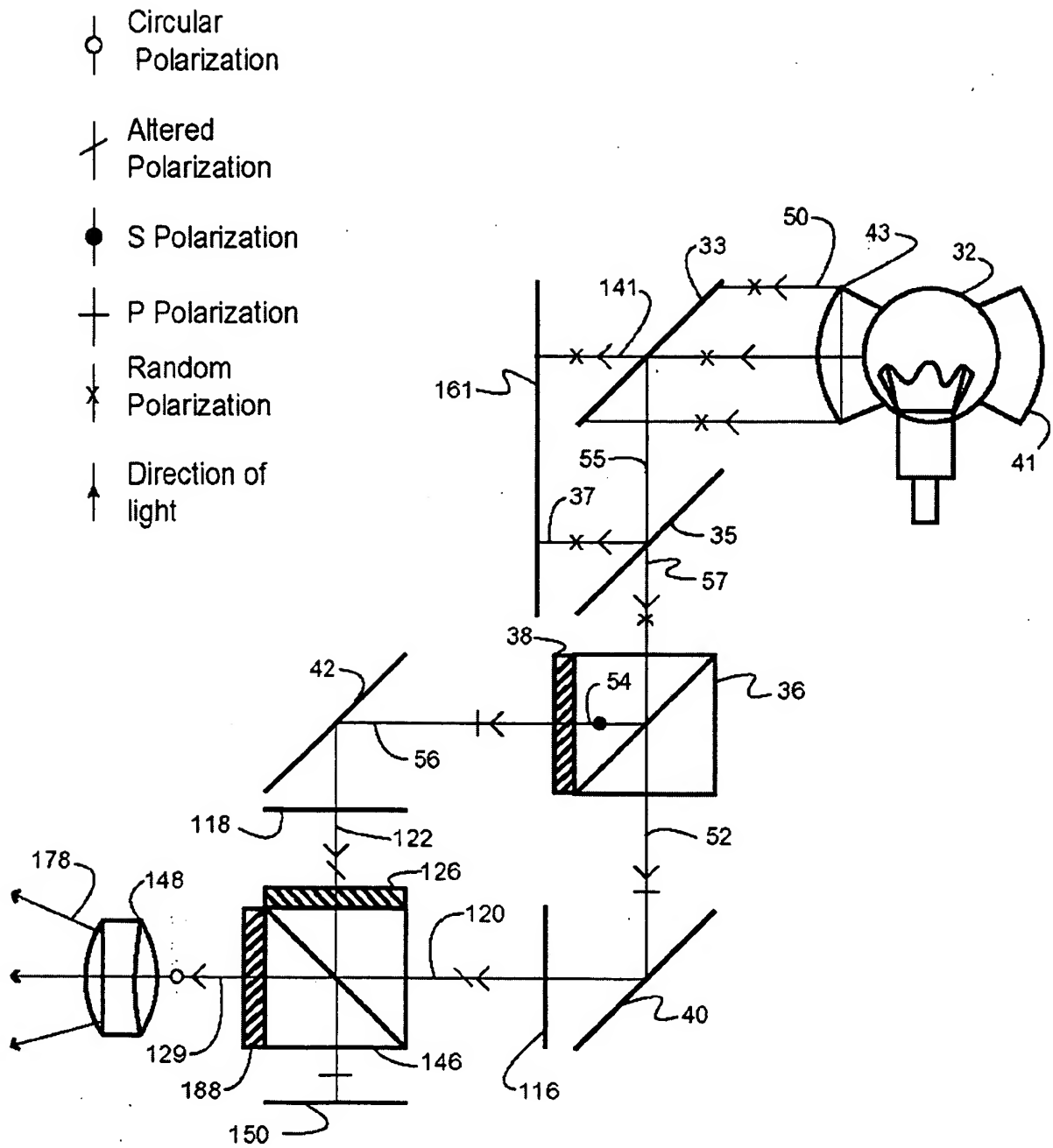
Fig. 20D



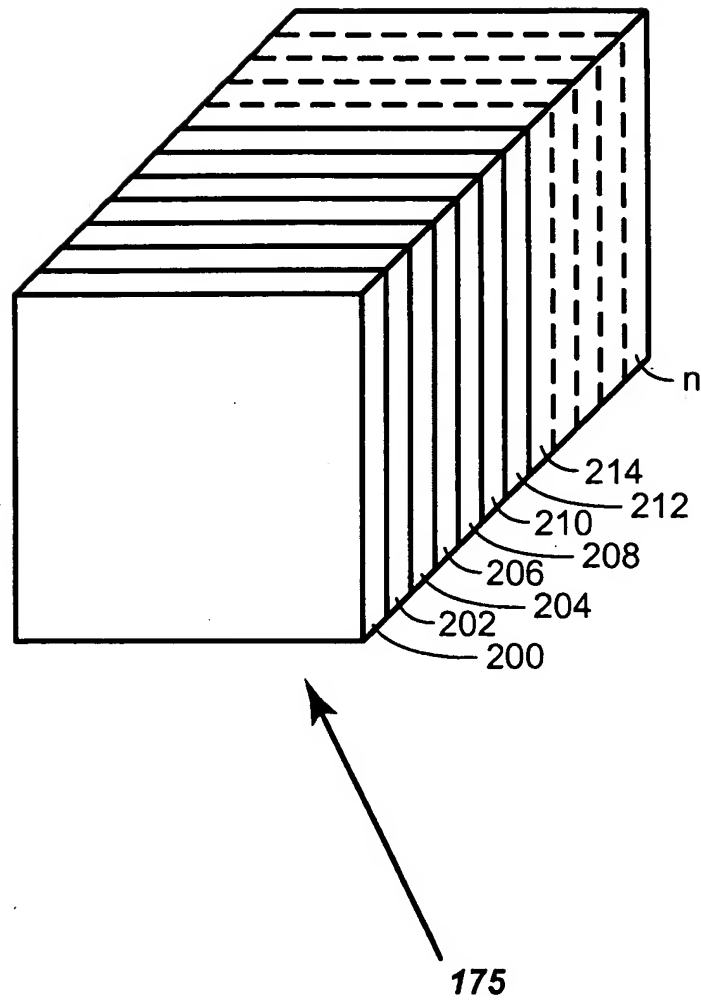
**Fig. 21**



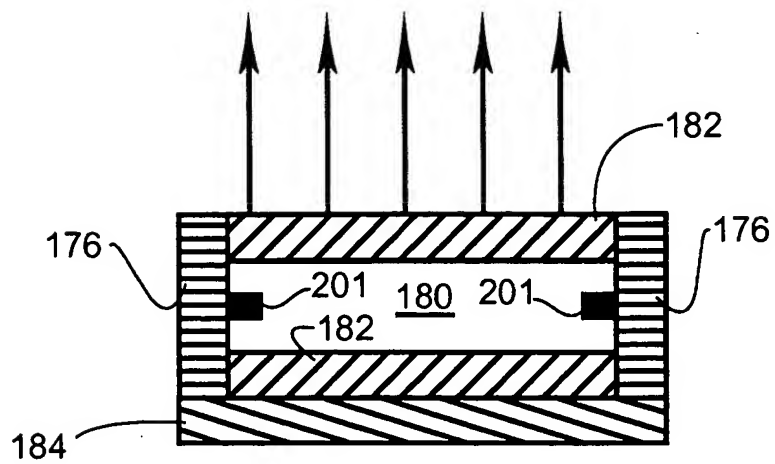
**Fig. 22**



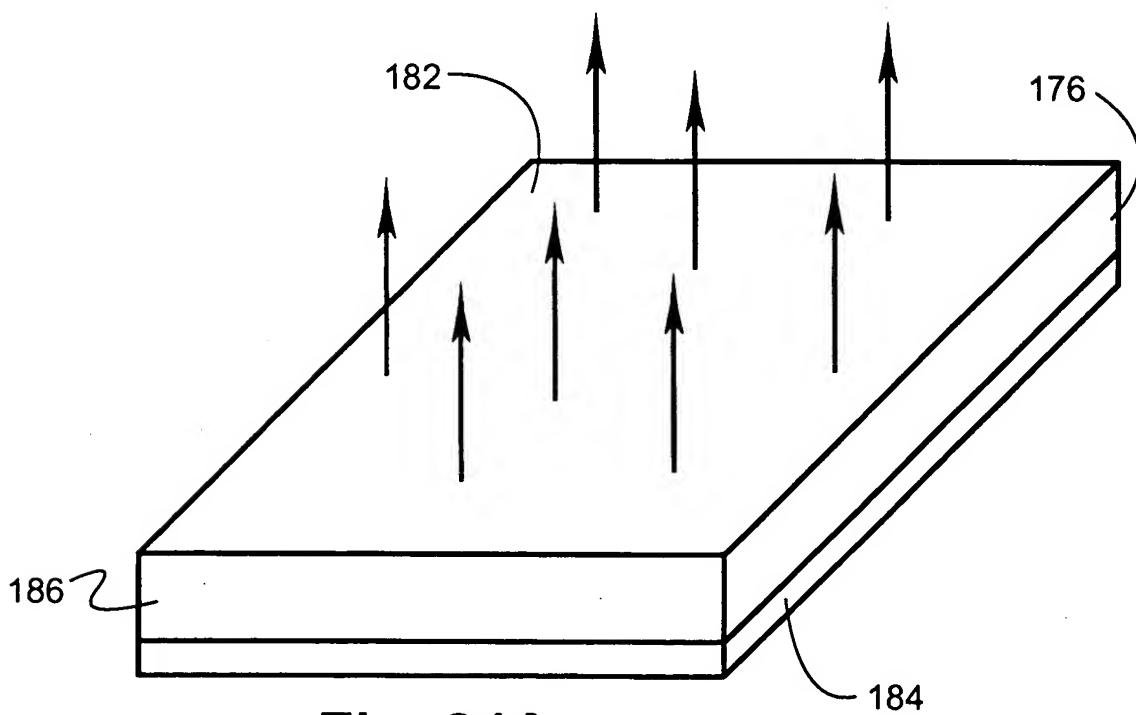
**Fig. 22A**



**Fig. 23**

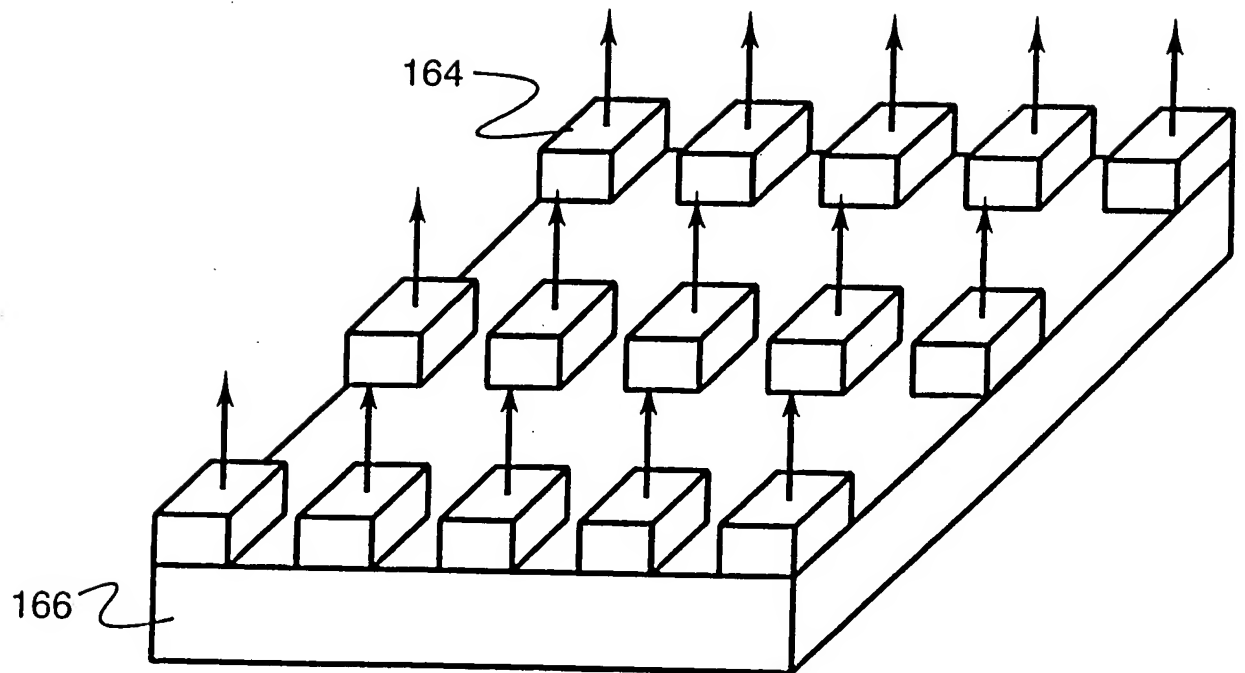


**Fig. 24**



**Fig. 24A**

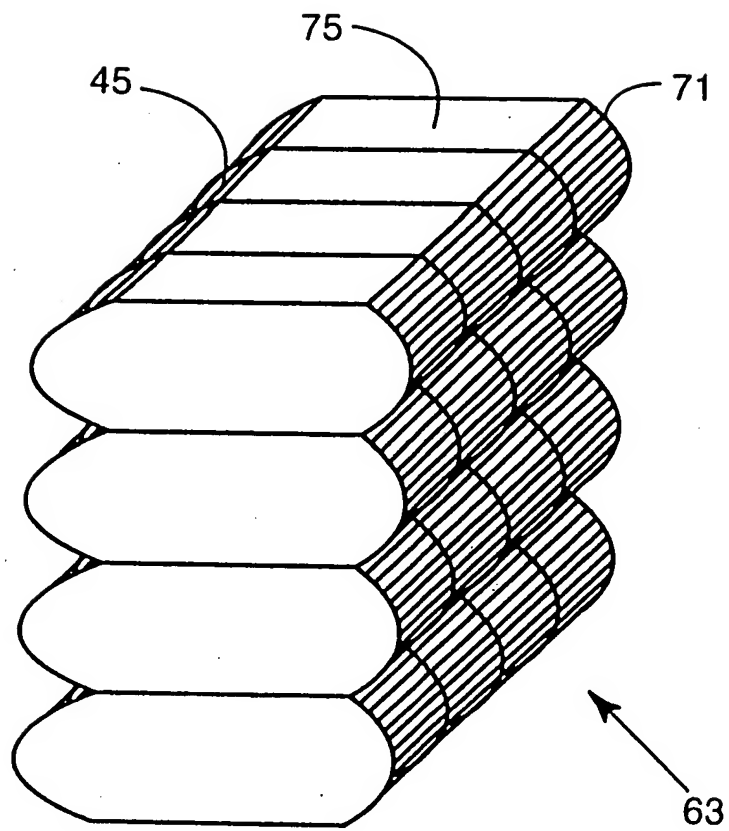




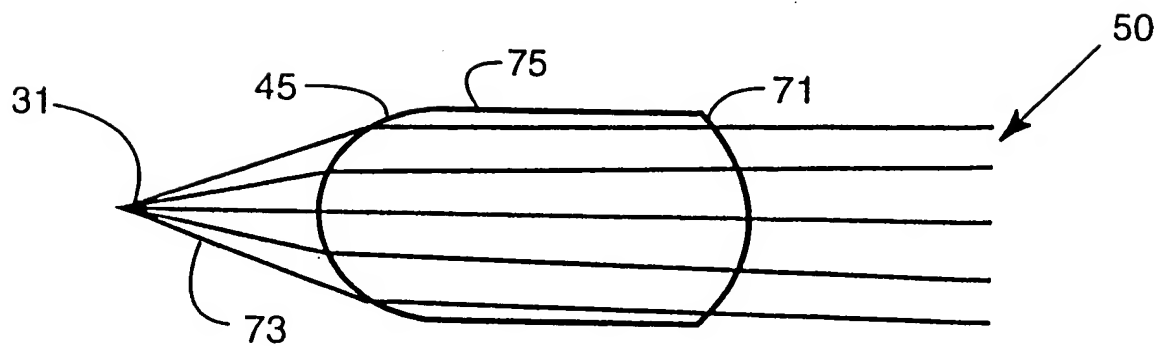
**Fig. 25**

PART NO.	FIG NO.	TYPE OF MIRROR	SYSTEM USEAGE	>NM TRANS -MISSION	<NM TRANS -MISSION	>NM REFLEC-TION	<NM REFLEC-TION
33	12	CUTOFF	IR FILTER	700			700
35		CUTOFF	UV FILTER	430			430
40		BROADBAND	MAIN BEAM REFLECTOR			400	
42		BROADBAND	MAIN BEAM REFLECTOR			400	
44		BROADBAND	MAIN BEAM REFLECTOR			400	
46		BROADBAND	MAIN BEAM REFLECTOR			400	
80	14	BANDPASS	RED SPLITTER		585	595	
84	18	BANDPASS	GREEN SPLITTER		490	500	
86	15	CUTOFF	BLUE REFLECTOR	495			490
82	14	BANDPASS	RED REFLECTOR-TUNER		590	605	
92	16	BANDPASS	RED-GREEN COMBINER		585	615	
90	17	CUTOFF	RED -GREEN/BLEUE COMBINER	525			500
88	15	CUTOFF	BLUE REFLECTOR-TUNER	490			485

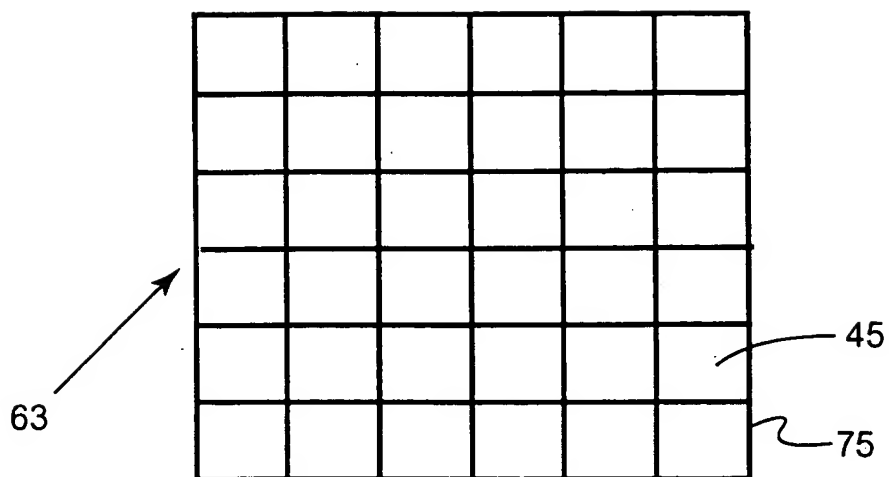
**Fig. 26**



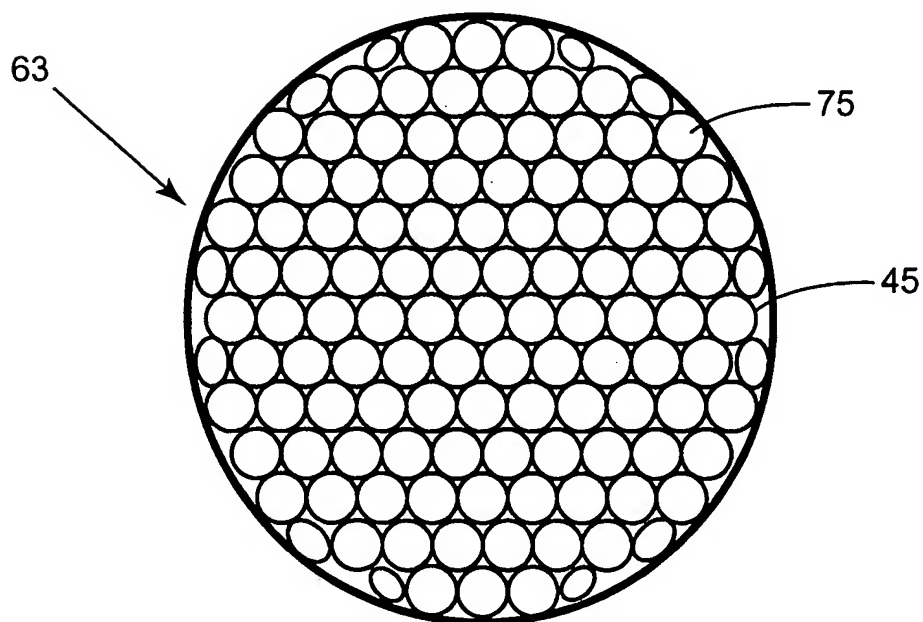
**Fig. 27**



**Fig. 27A**



**Fig. 27B**



**Fig. 27C**

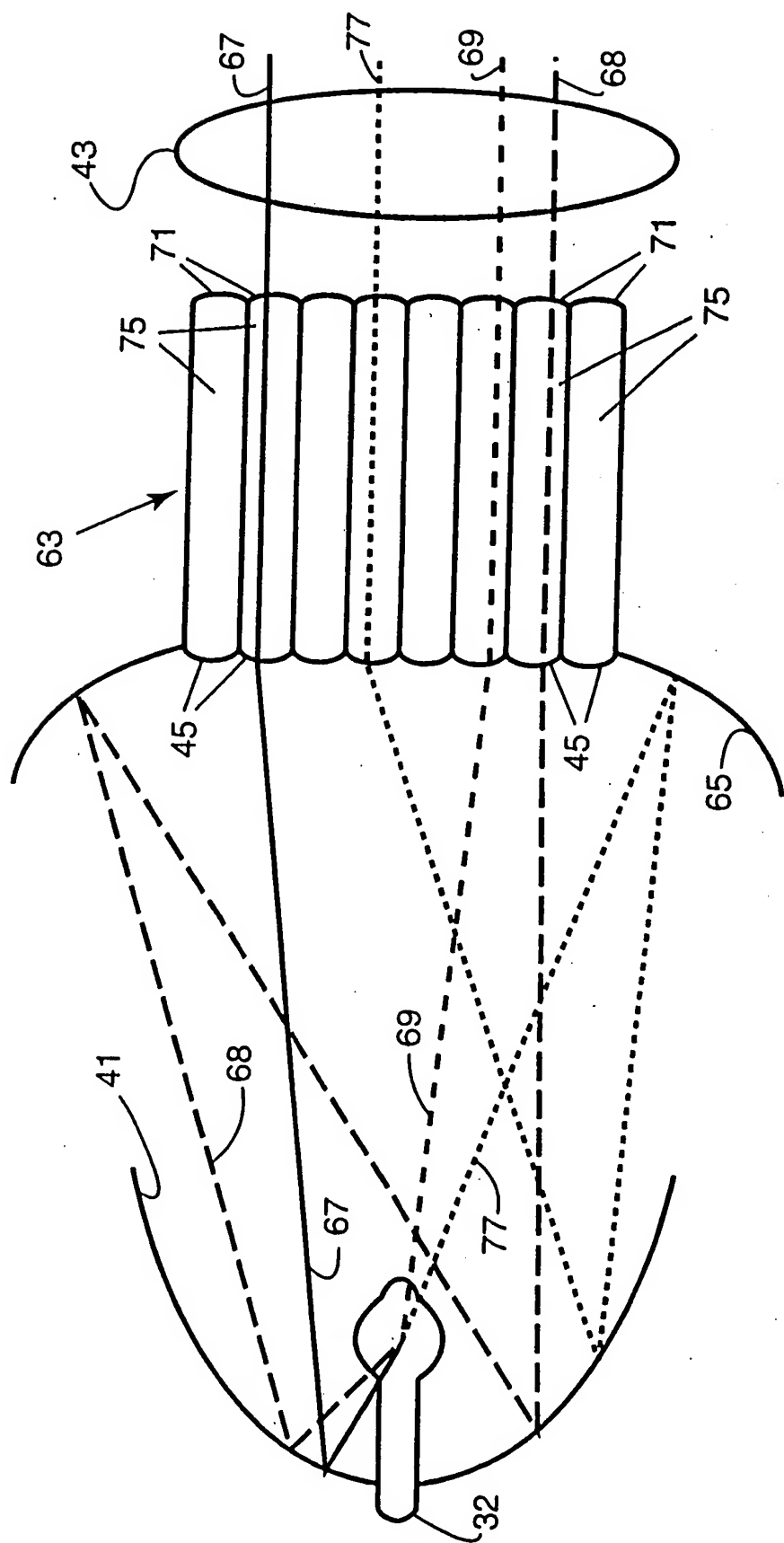


Fig. 28